TREO:

COMMERCIAL AIR CONDITIONERS

R410A All DC Inverter VRF V5 X Series 50/60Hz

V5 X Series

Designed to optimize the system and better meet market needs.

V5 X SERIES VRF offers a large capacity from 8HP up to 88HP in 2HP increments by combining 4 outdoor units. It also incorporates a range of outstanding features, wide-range outdoor and indoor units, high external static pressure, and energy saving technologies. It supports an incredible piping length of 1,000m and a level difference of 110m, making it perfect for large high-rise buildings.

Contents

- Features
- Specifications
- Indoor units lineup
- Control systems
- HRV
- Branch pipes

Features

Wide Application Range

Large capacity for big sized building

The outdoor units capacity range from 8HP up to 88HP in 2HP increment, max. combination of 4 basic models.

8,10,12HP

14,16,18,20,22HP

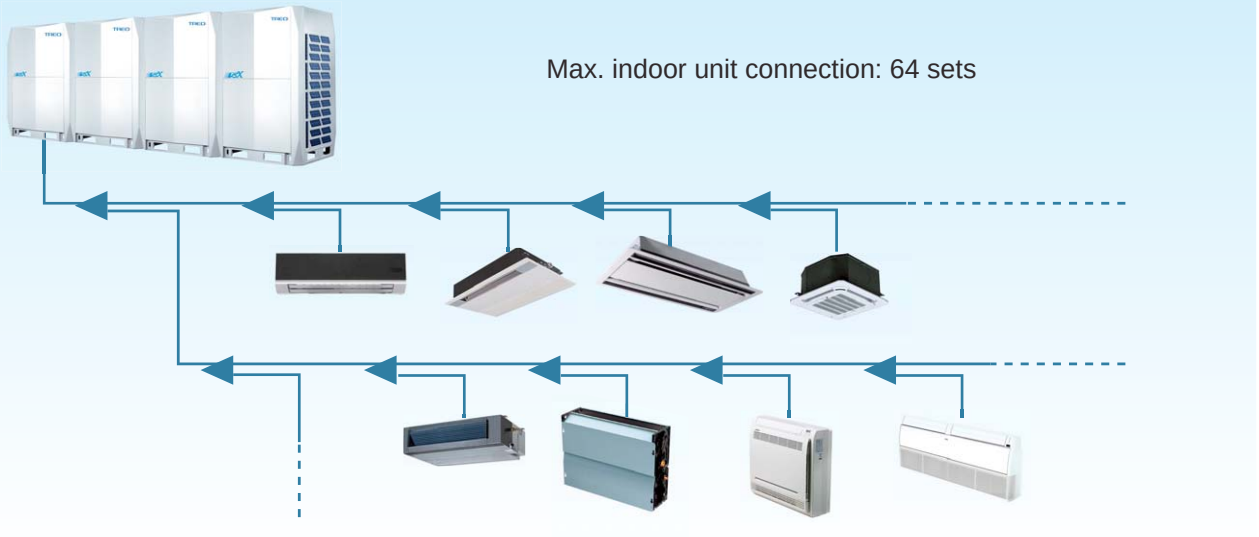
24~44HP

46~66HP

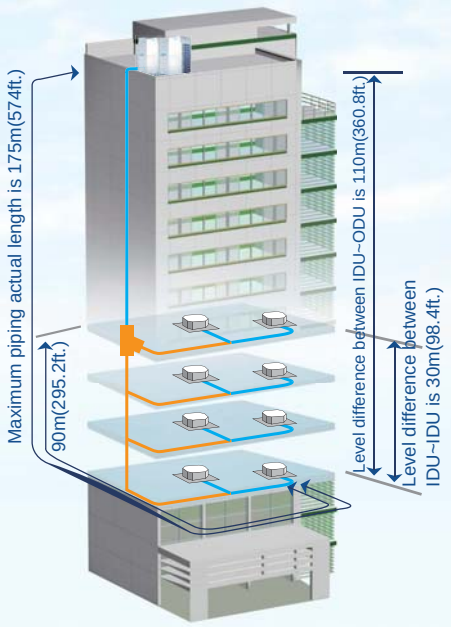
68~88HP

Wide choices of locations

Maximum 64 indoor units with capacity up to 130% of total outdoor units' can be connected in one refrigeration system. It is especially suitable for office buildings, hotels, apartments, waiting rooms, hospitals, and so on.



Long piping length


Maximum piping actual length is 175m(574ft.)
90m(295.2ft.)
Level difference between IDU~ODU is 110m(360.8ft.)
Level difference between IDU~IDU is 30m(98.4ft.)

The solution supports an incredible piping length of 1,000m(3280ft.)and level difference of 110m(360.8ft.), making it perfect for large projects.

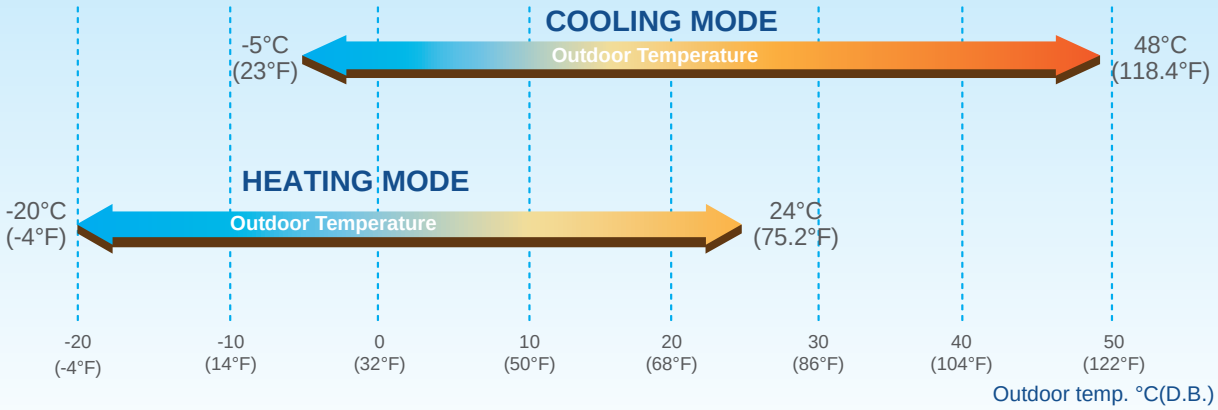
			Permitted value	
			m	ft.
Piping length	Total pipe length*(Actual)		1000	3280
	Maximum piping(L)	Actual length	175	574
		Equivalent length	200	656
	Piping (From the first IDU branch to the farthest IDU) equivalent length		40/90*	131.2/295.2*
Level difference	Level difference between IDU~ODU	Outdoor unit up	90	295.2
		Outdoor unit down	110	360.8
	Level difference between IDU~IDU		30	98.4

*Total pipe length is equal to two times pipe length plus pipe length.
*When the fastest pipe length is more than 40m(131.2ft.). It needs to meet the specific condition according to the installation part of the technical service manual.

High external static pressure

The high-static pressure propeller and optimized fan guard can adapt to various installation environments.
Midea now offers up to 40Pa(0.16”W.G.)* external static pressure units for customized applications. A standard 0-20Pa(0-0.08”W.G.) function is equipped by default.
*You need a consult with us if you require over 40Pa(0.16”W.G.).

Wide operation range

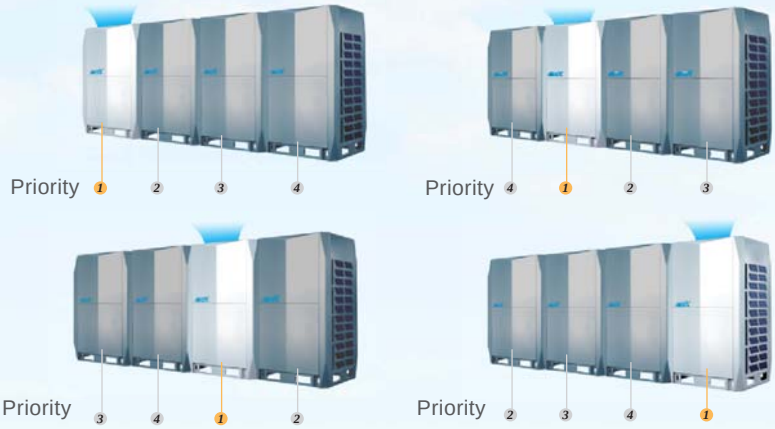


The V5 X series system operates stably at extreme temperatures ranging from -20°C(-4°F) to 48°C(118.4°F).

Higher Reliability

Duty cycling

In one combination, any outdoor unit can run as the master outdoor unit to equalize the service life of all units.



Back-up function

In a multiple system, when the master unit failed, any single unit can be set as the master unit，then the remaining units can keep on working. This can be set on PCB by DIP switches at site.

Running state

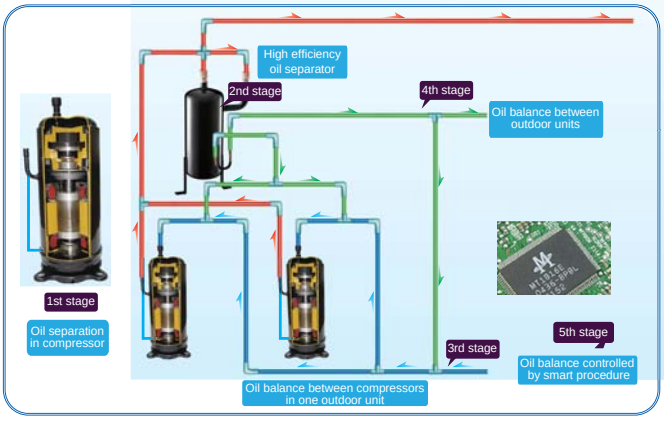
Standby state

Fault or stop state

High efficiency oil balance and oil return technology

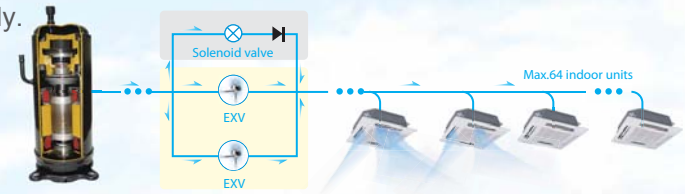
5 stages oil control technology ensures every outdoor unit & compressor's oil always keep in the safe level, completely solve the compressor oil shortage problem.

- ***1st stage:*** compressor internal oil separate.
- ***2nd stage:*** high efficiency centrifugal oil separator (separation efficiency up to 99%) makes oil separate from discharge gas and go back to compressors.
- ***3rd stage:*** oil balance pipes between compressors ensure even oil distribution to keep compressors running normally.
- ***4th stage:*** oil balance pipes among modules ensure even oil distribution among modules.
- ***5th stage:*** Auto oil return program by monitoring the running time and state of system ensures reliable oil return.



Accurate control technology

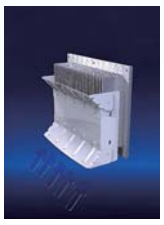
- Double EXV and liquid side by pass solenoid valve in one system, each EXV part achieves 480 pulse to adjust flow precisely, total 960 pulse. All the solenoid valves equipped in the unit ensure temperature-control precisely, system running steadily and economically.
- 2000 pulses EXV is used in some indoor units to ensure precise refrigerant control and less temperature fluctuation for comfortable room environment.



Real-time pressure control technology

- The pressure sensor can monitor the high pressure of the system and send it to the mainboard all the time.
- The system controls the speed of DC fan motor according to the load and the high pressure, so that the pressure can be regulated precisely.
- The system can operate in the best pressure status under different working environment, the reliability will be higher and the lifespan of the system will be longer.

Temperature protection for electricity device



- Professional air outlet grille design, cool down control box temperature around 8°C(14.4°F).
- High temperature protection for PCB box, auto recover when temperature back to normal.

Various kinds of protect function

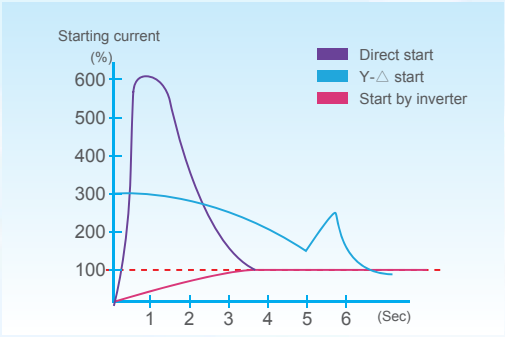
Ground protection	Phase sequence protection	Default phase protection	High-voltage protection	Low-voltage protection
Current protection	Fan motor Temp. protection	Compressor overload protection	Compressor Temp. protection	Pressure protection

Enhanced Comfort

Intelligent soft start technology

All DC inverter compressor and soft start function reduce strike to the electric network. This high-performance and low noise DC inveter compressor operates at a faster rate when starting, reducing start-up time. It also helps the unit to quickly adjust the room temperature to the set level.

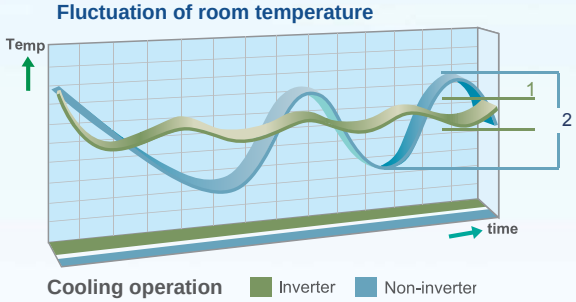
Comparison of start by inverter and by traditional methods



Quick warm-up and cool-down design

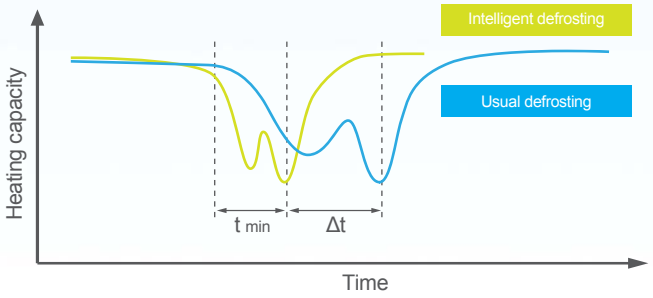
By utilizing the benefits of all DC inverter compressors, the system can reach full load quickly and shorten the warm-up and cool-down times to provide an immediate and comfortable air solution. Less temperature fluctuation will create a better living environment.

Fluctuation of room temperature



Intelligent defrosting technology

Intelligent defrosting program will judge the defrosting time according to the system real requirement, reduce the heating loss by unnecessary defrosting and make the indoor side more comfortable.



Optional operation mode

6 operation modes to be chosen:

- Heating priority mode (default)
- Cooling priority mode
- Heating only mode
- Cooling only mode
- VIP priority mode
  (address no. 63 is the VIP)
- Voting priority mode
  (larger capacity requirement is win)

Heating priority (default)

Cooling only

Vote priority

Cooling priority

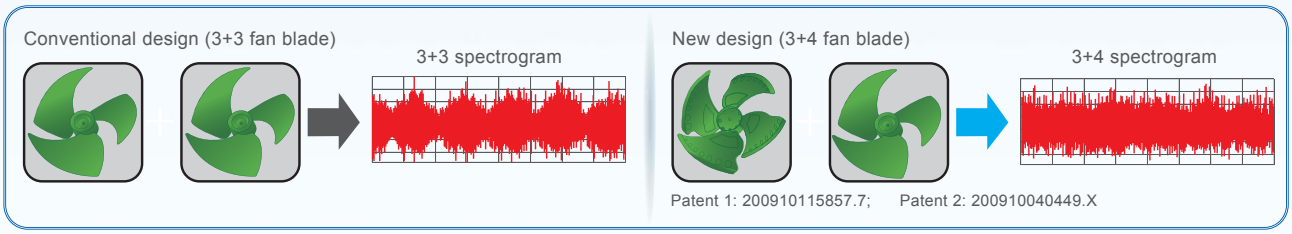
Heating only

VIP priority

Advanced silence technology

- Improved air outlet grille
- Anti vibration motor mounting frame
- CFD designed new shape fan blade
- 3+4 fan blade design
- All DC inverter compressor
- Compressor noise enclosure
- All DC inverter fan motor
- Night silent mode

3+4 fan blade, patent design

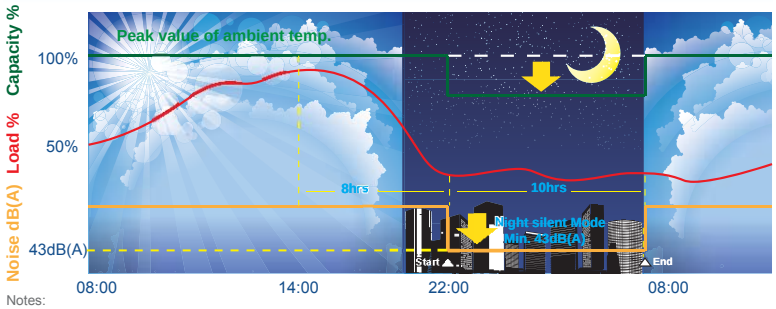


Patent 1: 200910115857.7; Patent 2: 200910040449.X

Outdoor unit night silent mode

- TREO's Night Silent Mode feature which is easily set on the PCB board allows the unit to be set to varies time options during Non-peak and Peak operation time optimizing the units noise output. Extra silent operation mode can reduce sound level further, minimum 43dB (A).
- Night silent operation will be activated X hours after the peak temperature during daytime, and it will go back to normal operation after Y hours.

-Mode 1→X: 6 hours, Y: 10 hours
-Mode 2→X: 8 hours, Y: 10 hours
-Mode 3→X: 6 hours, Y: 12 hours
-Mode 4→X: 8 hours, Y: 12 hours



Notes:
This function can be activated by setting at site. Temperature(load) curve shown in the graph is just an example.

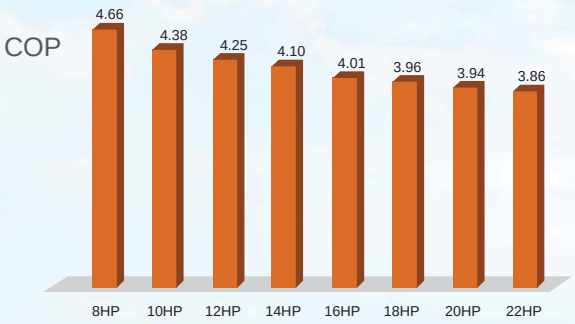
Indoor unit silent mode

According to users' needs real time or the room temperature, users can set the SILENT MODE through the indoor wired controller KJR-29B (optional). The minimum noise degree is 22.5dB(A) (for the 1.5kW compact four-way cassette).

High Efficiency

V5 X Series achieves the industry's top class energy efficiency of cooling and heating by utilizing DC compressor control, DC Fan motor, and improved performance heat exchanger.

High EER and COP values



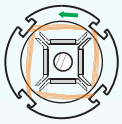
High efficiency DC inverter compressor

Low leakage, high reliability asymmetric scroll

Specially designed scroll profile for R410A

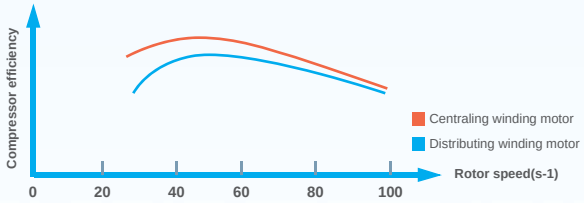
Advanced permanent magnet DC motor

Oil balance pipe



Distributing winding

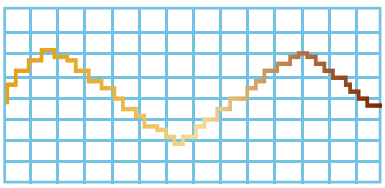
Centralizing winding



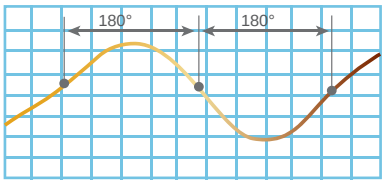
Smooth 180°sine wave DC inverter

Smooth the rotation of the compressor motor, improve the compressor operation efficiency sharply.

Effectively control the harmonic current and electromagnetic noise, and fully pass the international EMC test.



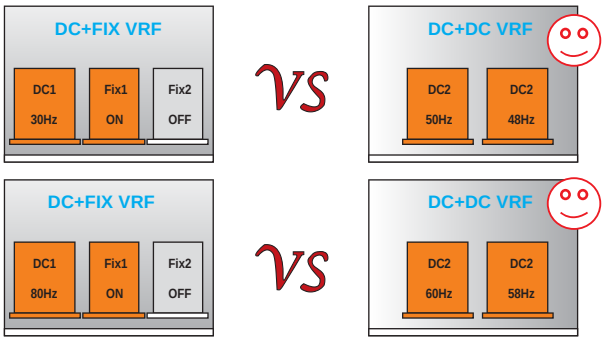
Common Sawtooth Wave



180° Sine Wave DC Inverter

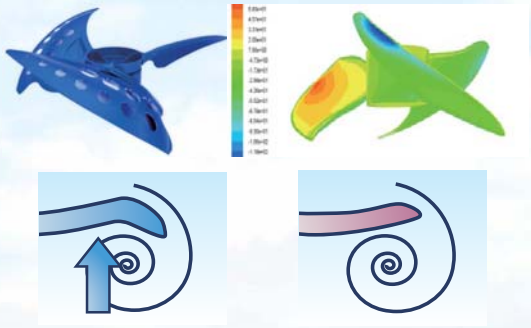
All DC inverter compressor, auto energy allocation

Thanks to the all DC inverter compressors technology, the running unit's output will automatically adjust according to the real time load demands. Units are always running at 40-70Hz which is the most efficient range. It makes units cost less energy and keep in good condition.



New profile fan blade

- A new CFD designed blade with concave suction surface changes the distribution of surface pressure.
- Through restraining the development of secondary currents, decreases the drop loss of wall air current.
- A new blade with sharp edges and a slight curve increases the airflow rate and lowers vibration and airflow resistance.

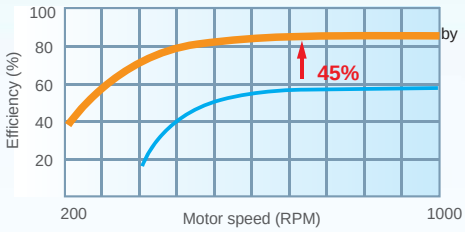


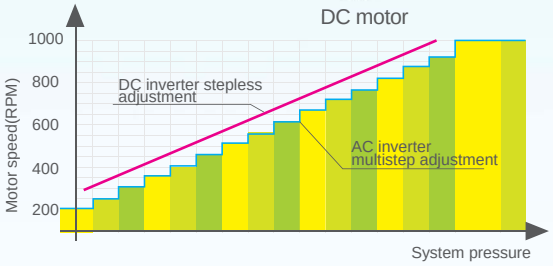
DC fan motor

According to the running load and pressure, it controls the speed of DC fan to achieve the minimum power consumption.

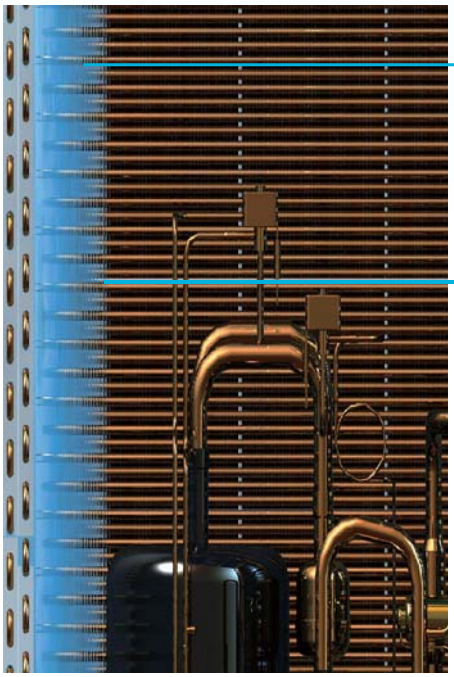
- Used across entire range of models (from 8 to 64 HP).
- Efficiency improvement up to 45% especially at low speed.
- Wide speed adjustment with 18 steps vetor control.

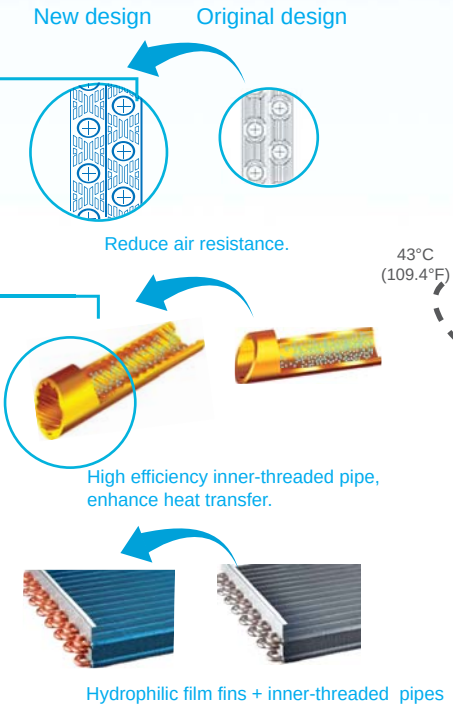
DC motor

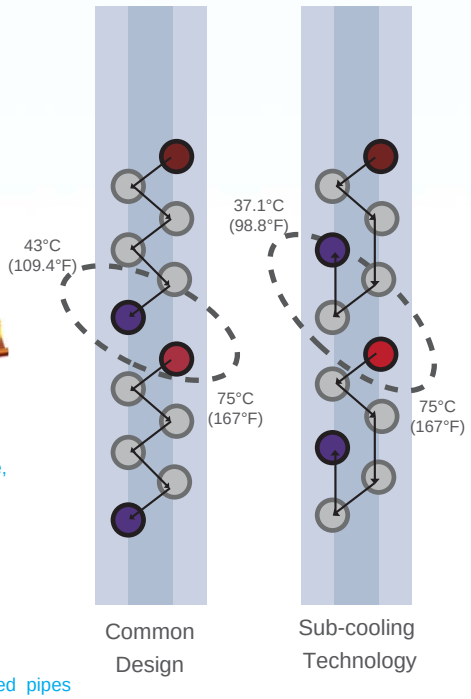




High performance heat exchanger




New design
Original design
Reduce air resistance.
High efficiency inner-threaded pipe, enhance heat transfer.
Hydrophilic film fins + inner-threaded pipes



- The new designed window fins enlarge the heat-exchanging area , decrease the air resistance, save more power and enhance heat exchange performance.
- Hydrophilic film fins and inner-threaded copper pipes optimize heat exchange efficiency.
- When the outdoor temperature is 35°C(95°F), the refrigerant can be cooled down to 37.1°C(98.8°F), thus achieving high heat-exchanging efficiency with only 2.1°C(3.8°F) temperature difference.

Easier Installation and Service

Simple communication wiring

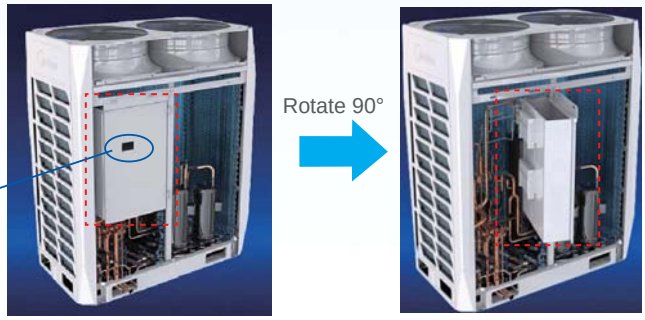
Centralized controller (CCM30) can connect from indoor side or outdoor side (XYE terminals) at will. With one group of wires, we can realize the network communication and system communication. Such simple wiring is more convenient for installation work at site.

Auto-test operation and auto-addressing function

- Just simply press the test operation button, the unit will perform an automatic system check, including wiring, shutoff valves, and sensors. The results are returned automatically after the check is finished.
- Outdoor unit can distribute addresses for indoor unit automatically. Wireless and wired controllers can query and modify each indoor unit's address.

90° rotatable electric box

- The newly designed rotating control box is so excellent that it can rotate in a 90° angle. It is convenient for the inspection and maintenance of the pipeline system and greatly reduced the time of dismount the electric control box.
- Checking window for quick inspection of system status.

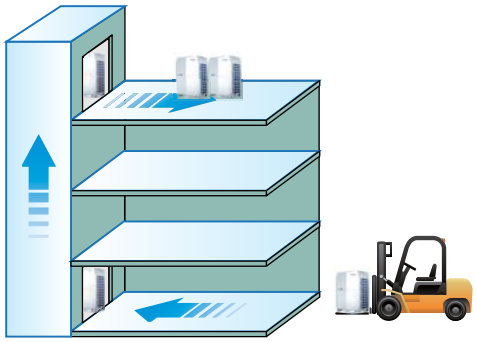


360° pipe connection

Pipes can be connected in multi directions: front, left, right and rear.

Compact size for saving space

Compact size design minimizes the installation footprint, and is easier for transportation. The units can even be transported through elevator or forklift at the jobsite.



Specifications

Outdoor units' lineup

Model	HP	No. of compressors	Outdoor unit combination								Max. Qty. of indoor unit	Capacity kW	
			8HP	10HP	12HP	14HP	16HP	18HP	20HP	22HP		Cooling	Heating
MV5-X252W/V2GN1	8	1	1								13	25.2	27
MV5-X280W/V2GN1	10	1		1							16	28	31.5
MV5-X335W/V2GN1	12	1			1						20	33.5	37.5
MV5-X400W/V2GN1	14	2				1					23	40	45
MV5-X450W/V2GN1	16	2					1				26	45	50
MV5-X500W/V2GN1	18	2						1			29	50	56
MV5-X560W/V2GN1	20	2							1		33	56	63
MV5-X615W/V2GN1	22	2								1	36	61.5	69
MV5-X670W/V2GN1	24	2			2						39	67	75
MV5-X730W/V2GN1	26	3		1			1				43	73	81.5
MV5-X780W/V2GN1	28	3		1				1			46	78	87.5
MV5-X840W/V2GN1	30	3		1					1		50	84	94.5
MV5-X895W/V2GN1	32	3		1						1	53	89.5	100.5
MV5-X950W/V2GN1	34	3			1					1	56	95	106.5
MV5-X1000W/V2GN1	36	4						2			59	100	112
MV5-X1065W/V2GN1	38	4					1			1	63	106.5	119
MV5-X1115W/V2GN1	40	4						1		1	64	111.5	125
MV5-X1175W/V2GN1	42	4							1	1	64	117.5	132
MV5-X1230W/V2GN1	44	4								2	64	123	138
MV5-X1285W/V2GN1	46	4			2					1	64	128.5	144
MV5-X1345W/V2GN1	48	5		1			1			1	64	134.5	150.5
MV5-X1395W/V2GN1	50	5		1				1		1	64	139.5	156.5
MV5-X1455W/V2GN1	52	5		1					1	1	64	145.5	163.5
MV5-X1510W/V2GN1	54	5		1						2	64	151	169.5
MV5-X1565W/V2GN1	56	5			1					2	64	156.5	175.5
MV5-X1615W/V2GN1	58	6						2		1	64	161.5	181
MV5-X1680W/V2GN1	60	6					1			2	64	168	188
MV5-X1730W/V2GN1	62	6						1		2	64	173	194
MV5-X1790W/V2GN1	64	6							1	2	64	179	201
MV5-X1845W/V2GN1	66	6								3	64	184.5	207
MV5-X1900W/V2GN1	68	6			2					2	64	190	213
MV5-X1960W/V2GN1	70	7		1			1			2	64	196	219.5
MV5-X2010W/V2GN1	72	7		1				1		2	64	201	225.5
MV5-X2070W/V2GN1	74	7		1					1	2	64	207	232.5
MV5-X2125W/V2GN1	76	7		1						3	64	212.5	238.5
MV5-X2180W/V2GN1	78	7			1					3	64	218	244.5
MV5-X2230W/V2GN1	80	8						2		2	64	223	250
MV5-X2295W/V2GN1	82	8					1			3	64	229.5	257
MV5-X2345W/V2GN1	84	8						1		3	64	234.5	263
MV5-X2405W/V2GN1	86	8							1	3	64	240.5	270
MV5-X2460W/V2GN1	88	8								4	64	246	276

Notes:

1. Capacities are based on the following conditions:

Cooling: Indoor temperature 27℃(80.6°F) DB/19℃(66.2°F) WB; Outdoor temperature 35℃(95°F) DB/24℃(75.2°F) WB

Heating: Indoor temperature 20℃(68°F) DB/15℃(59°F) WB; Outdoor temperature 7℃(44.6°F) DB/6℃(42.8°F) WB

2. Piping length: Interconnecting piping length is 7.5m, level difference is zero.

3. The above combination models are factory-recommended models.

Outdoor specifications

Model			MV5-X252W/V2GN1	MV5-X280W/V2GN1	MV5-X335W/V2GN1	MV5-X400W/V2GN1
Power source		V-Ph-Hz	380～415V 3N 50Hz/60Hz			
Cooling	Capacity	kW	25.2	28.0	33.5	40.0
		RT	7.2	8.0	9.5	11.4
		kBtu/h	86.0	95.5	114.3	136.5
		kcal/h	21,672	24,080	28,810	34,400
	Power input	kW	5.79	7.02	8.71	10.81
	EER	kW/kW	4.35	3.99	3.85	3.70
Heating	Capacity	kW	27.0	31.5	37.5	45.0
		RT	7.7	8.9	10.7	12.8
		kBtu/h	92.1	107.5	128.0	153.5
		kcal/h	23,220	27,090	32,250	38,700
	Power input	kW	5.79	7.19	8.82	10.98
	COP	kW/kW	4.66	4.38	4.25	4.10
Connectable indoor unit	Total capacity	%	50-130	50-130	50-130	50-130
	Max. quantity		13	16	20	23
Sound pressure level		dB(A)	43～58	43～59	43～60	43～62
Pipe connections	Liquid pipe	in.(mm)	Φ3/8(Φ9.53)	Φ3/8(Φ9.53)	Φ1/2(Φ12.7)	Φ1/2(Φ12.7)
	Gas pipe	in.(mm)	Φ7/8(Φ22.2)	Φ7/8(Φ22.2)	Φ1(Φ25.4)	Φ1(Φ25.4)
	Oil balance pipe	in.(mm)	Φ1/4(Φ6)	Φ1/4(Φ6)	Φ1/4(Φ6)	Φ1/4(Φ6)
Fan motor	Type		DC motor	DC motor	DC motor	DC motor
	Quantity		1	1	1	2
	Air flow rate	m3/h	10,800	10,800	10,800	14,000
		CFM	6,360	6,360	6,360	8,240
	Motor output	W	465	465	465	290+230
	ESP	in.WG(Pa)	0～0.08(0~20) (default)			
		in.WG(Pa)	0.08~0.16(20~40) (customized)			
DC inverter compressor	Quantity		1	1	1	2
	Capacity	kW	21.06	21.06	23.25	13.8×2
		kBtu/h	71.9	71.9	79.3	47.1×2
	Crankcase heater	W	27.6×2	27.6×2	27.6×2	27.6×4
	Oil type		FVC68D	FVC68D	FVC68D	FVC68D
	Oil charge	gal.(ml)	0.132(500)	0.132(500)	0.132(500)	0.132（500）×2
Refrigerant	Type		R410A	R410A	R410A	R410A
	Factory charging	lbs.(kg)	20(9)	20(9)	24(11)	29(13)
Design pressure (High/Low)		psi	640/380	640/380	640/380	640/380
		MPa	4.4/2.6	4.4/2.6	4.4/2.6	4.4/2.6
Net dimension (W×H×D)		inch	39×64-3/8×31-1/8			52-3/4×64-3/8×31-1/8
		mm	990×1635×790			1340×1635×790
Packing size (W×H×D)		inch	41-1/2×71-1/16×33-5/8			55-3/8×71-1/16×33-5/8
		mm	1055×1805×855			1405×1805×855
Net weight		lbs.(kg)	483(219)	483(219)	523(237)	655(297)
Gross weight		lbs.(kg)	516(234)	516(234)	556(252)	695(315)
Operating temperature range	Cooling	°F(°C)	23~118.4(-5~48)			
	Heating	°F(°C)	-4~75.2(-20~24)			

Notes:

1. Capacities are based on the following conditions:

Cooling: Indoor temperature 27°C DB/19°C WB; Outdoor temperature 35°C DB/24°C WB.

Heating: Indoor temperature 20°C DB/15°C WB; Outdoor temperature 7°C DB/6°C WB.

Piping length: Interconnecting piping length is 7.5m, level difference is zero.

2. Connection piping diameter is based on the condition that the total equivalent liquid length is less than 90m. When the total equivalent liquid length is more than 90m, please refer to technical manual to choose the connection piping diameter.

3. Sound values are measured in a semi-anechoic room, at a position 1m in front of the unit and 1.3m above the floor.

4.The above data may be changed without notice for further improvement on quality and performance.

Outdoor specifications

Model			MV5-X450W/V2GN1	MV5-X500W/V2GN1	MV5-X560W/V2GN1	MV5-X615W/V2GN1
Power source		V-Ph-Hz	380～415V 3N 50Hz/60Hz			
Cooling	Capacity	kW	45.0	50.0	56.0	61.5
		RT	12.8	14.3	16.0	17.6
		kBtu/h	153.5	170.6	191.1	209.8
		kcal/h	38,700	43,000	48,160	52,890
	Power input	kW	12.83	14.47	16.67	18.77
	EER	kW/kW	3.51	3.46	3.36	3.28
Heating	Capacity	kW	50.0	56.0	63.0	69.0
		RT	14.2	16.0	18.0	19.7
		kBtu/h	170.6	191.1	214.9	235.4
		kcal/h	43,000	48,160	54,180	59,340
	Power input	kW	12.47	14.15	15.98	17.86
	COP	kW/kW	4.01	3.96	3.94	3.86
Connectable indoor unit	Total capacity	%	50-130	50-130	50-130	50-130
	Max. quantity		26	29	33	36
Sound pressure level		dB(A)	43～62	43～63	43～63	43～63
Pipe connections	Liquid pipe	in.(mm)	Φ1/2(Φ12.7)	Φ5/8(Φ15.9)	Φ5/8(Φ15.9)	Φ5/8(Φ15.9)
	Gas pipe	in.(mm)	Φ1-1/8(Φ28.6)	Φ1-1/8(Φ28.6)	Φ1-1/8(Φ28.6)	Φ1-1/8(Φ28.6)
	Oil balance pipe	in.(mm)	Φ1/4(Φ6)	Φ1/4(Φ6)	Φ1/4(Φ6)	Φ1/4(Φ6)
Fan motor	Type		DC motor	DC motor	DC motor	DC motor
	Quantity		2	2	2	2
	Air flow rate	m3/h	14,000	15,500	15,500	15,500
		CFM	8,240	9,120	9,120	9,120
	Motor output	W	290+230	420+350	440+350	440+350
	ESP	in.WG(Pa)	0～0.08(0~20) (default)			
		in.WG(Pa)	0.08~0.16(20~40) (customized)			
DC inverter compressor	Quantity		2	2	2	2
	Capacity	kW	13.8×2	11.8+23.25	23.25×2	23.25×2
		kBtu/h	47.1×2	40.3+79.3	79.3×2	79.3×2
	Crankcase heater	W	27.6×4	27.6×4	27.6×4	27.6×4
	Oil type		FVC68D	FVC68D	FVC68D	FVC68D
	Oil charge	gal.(ml)	0.132（500）×2	0.132(500)×2	0.132(500)×2	0.132(500)×2
Refrigerant	Type		R410A	R410A	R410A	R410A
	Factory charging	lbs.(kg)	29(13)	29(13)	35(16)	35(16)
Design pressure (High/Low)		psi	640/380	640/380	640/380	640/380
		MPa	4.4/2.6	4.4/2.6	4.4/2.6	4.4/2.6
Net dimension (W×H×D)		inch	52-3/4×64-3/8×31-1/8			
		mm	1340×1635×790			
Packing size (W×H×D)		inch	55-3/8×71-1/16×33-5/8			
		mm	1405×1805×855			
Net weight		lbs.(kg)	655(297)	673(305)	750(340)	750(340)
Gross weight		lbs.(kg)	695(315)	712(323)	790(358)	790(358)
Operating temperature range	Cooling	°F(°C)	23~118.4(-5~48)			
	Heating	°F(°C)	-4~75.2(-20~24)			

Notes:

1. Capacities are based on the following conditions:

Cooling: Indoor temperature 27°C DB/19°C WB; Outdoor temperature 35°C DB/24°C WB.

Heating: Indoor temperature 20°C DB/15°C WB; Outdoor temperature 7°C DB/6°C WB.

Piping length: Interconnecting piping length is 7.5m, level difference is zero.

2. Connection piping diameter is based on the condition that the total equivalent liquid length is less than 90m. When the total equivalent liquid length is more than 90m, please refer to technical manual to choose the connection piping diameter.

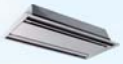
3. Sound values are measured in a semi-anechoic room, at a position 1m in front of the unit and 1.3m above the floor.

4.The above data may be changed without notice for further improvement on quality and performance.

TREO: Indoor Units Lineup →

Indoor Units Lineup

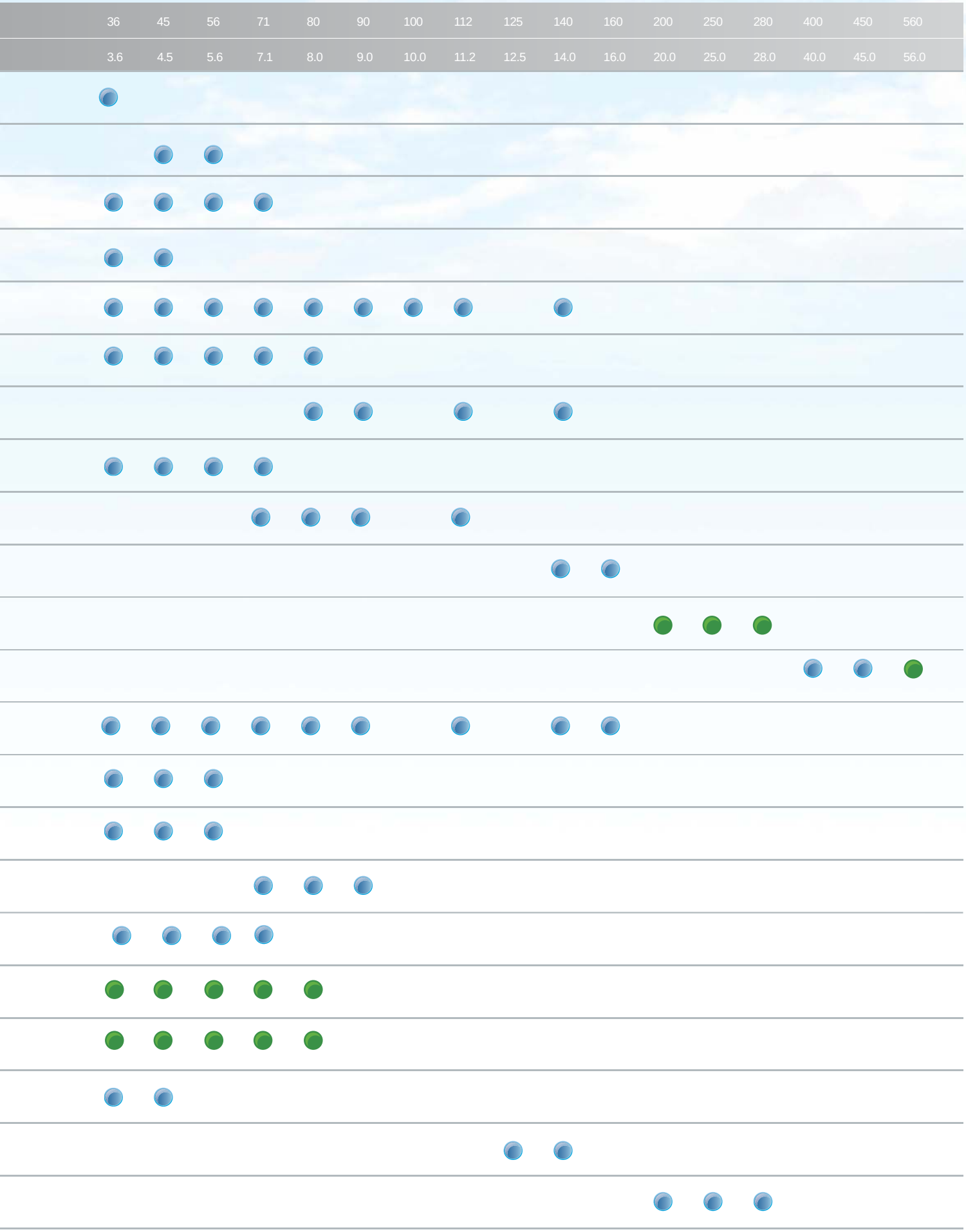
- One-way Cassette
- Two-way Cassette
- Compact Four-way Cassette
- Four-way Cassette
- Low Static Pressure Duct
- Fresh Air Processing Unit
- High Static Pressure Duct
- Ceiling & Floor
- Floor Standing
- Console
- Wall-mounted

Type		Model	15	18	22	28
		kW	1.5	1.8	2.2	2.8
One-way Cassette	MDV-D XX Q1/N1-D			●	●	●
	MDV-D XX Q1/N1-C					
Two-way Cassette	MDV-D XX Q2/N1				●	●
Compact Four-way Cassette	MDV-D XX Q4/N1-A3		●		●	●
Four-way Cassette	MDV-D XX Q4/N1-D					●
Low Static Pressure Duct	MDV-D XX T3/N1-C			●	●	●
Concealed Duct Unit(A5 Type)	MDV-D XX T2/N1-BA5					
	MDV-D XX T2/N1-DA5		●		●	●
High Static Pressure Duct	MDV-D XX T1/N1-B					
Ceiling & Floor	MDV-D XX DL/N1-C					
Wall-mounted	MDV-D XX G/N1-S MDV-D XX G/DN1-S		●		●	●
	MDV-D XX G/N1YB MDV-D XX G/DN1YB				●	●
	MDV-D XX G-R3/N1Y					
	MDV-D XX G/N1Y-11D5				●	●
Floor Standing	MDV-D XX Z/N1-F3B				●	●
	MDV-D XX Z/N1-F4(F5)				●	●
Console	MDV-D XX Z/DN1-B				●	●
Fresh Air Processing Unit	MDV-D XX T1/N1-FA					

12 types and more than 100 models are available to meet varied customer requirements，1.5kW model is only available for V4 plus and MINI VRF system.

●: Available for 50&60Hz.

●: Only available for 50Hz.

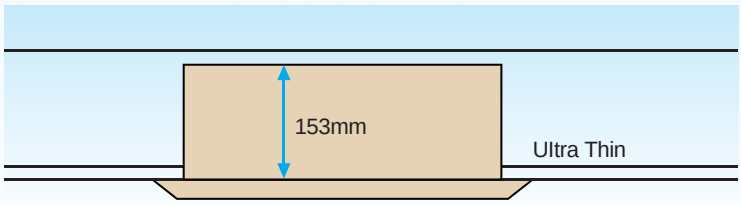

36 45 56 71 80 90 100 112 125 140 160 200 250 280 400 450 560
3.6 4.5 5.6 7.1 8.0 9.0 10.0 11.2 12.5 14.0 16.0 20.0 25.0 28.0 40.0 45.0 56.0

One-way Cassette

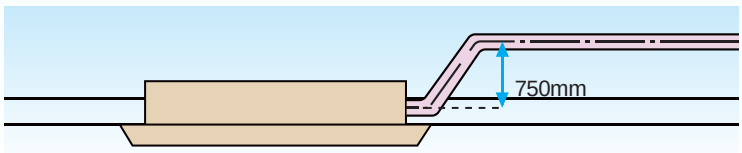
- Auto Restart
- Fresh Air
- Auto Addressing
- Cleanable Panel
- Follow Me
- Anti-Cold Air Function
- LED Display
- Super High Air Flow
- Built-in Drain Pump

Only 153mm thickness

Compact design,ultra slim body with a minimum thickness of 153mm for model 18-36,especially suitable for narrow ceiling , such as in lobbies and small meeting rooms.

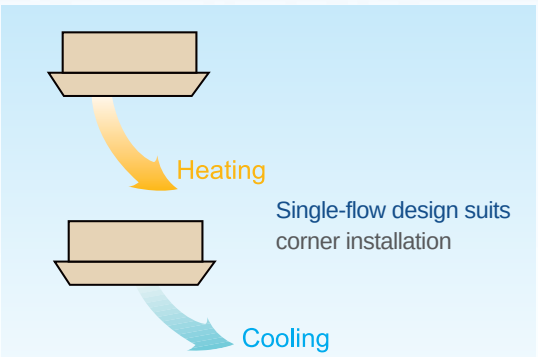


Standard built-in drain pump with 750mm pump head.



Auto swing

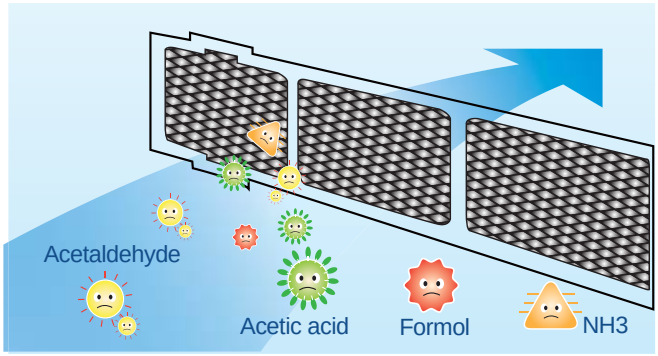
Auto swing mechanism guarantees even airflow distribution and a better room temperature balance.



Fresh air, improved air quality

Reserved fresh air intake port for high quality air creates a comfortable and healthy environment.

Special enzyme sterilization and filtering technologies filter bacteria, smog, and pollen. Provide a clean, healthy and natural air supply.



50Hz Specifications

Model			MDV-D18Q1 /N1-D	MDV-D22Q1 /N1-D	MDV-D28Q1 /N1-D	MDV-D36Q1 /VN1-D	MDV-D45Q1 /N1-C	MDV-D56Q1 /N1-C
Power supply			1-phase,220-240V,50Hz					
Cooling capacity		kW	1.8	2.2	2.8	3.6	4.5	5.6
		kcal/h	1500	1900	2400	3100	3900	4800
		Btu/h	6100	7500	9600	12300	15400	19100
Heating capacity		kW	2.2	2.6	3.2	4	5	6.3
		kcal/h	1900	2200	2800	3400	4300	5400
		Btu/h	7500	8900	10900	13600	17100	21500
Rated input	Cooling	W	41	41	41	41	80	85
	Heating		41	41	41	41	80	85
Rated current	Cooling	A	0.24	0.24	0.25	0.25	0.37	0.39
	Heating		0.24	0.24	0.25	0.25	0.37	0.39
Airflow rate(H/M/L)		m^3/h	523/404/275	523/404/275	573/456/315	573/456/315	704/630/503	860/810/702
		CFM	308/238/162	308/238/162	337/268/185	337/268/185	414/370/296	506/476/413
Sound pressure level(H/M/L)		dB(A)	37/34/30	38/34/30	39/37/34	40/38/34	41/39/35	42/40/36
Refrigerant		Type	R410A					
		Control method	EXV					
Indoor Unit	Net dim.(W×H×D)	mm	1054×169×425				1147×200×640	
	Gross dim.(W×H×D)		1155×245×490				1380×265×775	
	NetGross	kg	12.5/16		13/16.5		31.5/37.2	
Panel	Net dim.(W×H×D)	mm	1180×36.5×465		1180×36.5×465		1425×10×755	
	Gross dim.(W×H×D)		1232×107×517		1232×107×517		1500×110×870	
	NetGross	kg	3.5/5.2		3.5/5.2		9/12	
Piping connections	L(flare)	mm	Φ6.35		Φ6.35		Φ6.35	Φ9.53
	G(flare)	mm	Φ12.7		Φ12.7		Φ12.7	Φ15.9
	Drain piping	mm	OD Φ25		OD Φ25		OD Φ25	
Standard Controller			Wireless remote controller RM05/BG(T)E-A/E)					

Notes:

1. Nominal cooling capacities are based on the following conditions: return air temp. : 80.6°F(27°C)DB,66.2°F(19°C)WB,and outdoor temp.: 95°F(35°C)DB,equivalent ref. piping: 26.25ft. (8m) (horizontal)
2. Nominal heating capacities are based on the following conditions: return air temp.: 68°F(20°C)DB, outdoor temp.: 44.6°F(7°C)DB,42.8°F(6°C)WB, and equivalent ref. Piping: 26.25ft. (8m) (horizontal)
3. Sound Level is measured 4.59ft.(1.4m) below the unit

Two-way Cassette

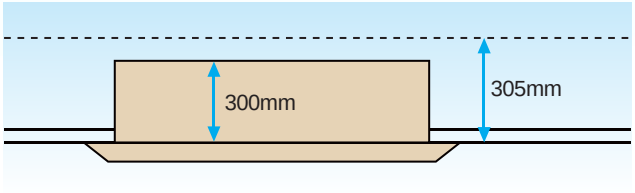
- Auto Restart
- Fresh Air
- Auto Addressing
- Cleanable Panel
- Follow Me
- Anti-Cold Air Function
- LED Display
- Super High Air Flow
- Built-in Drain Pump

Quiet operation

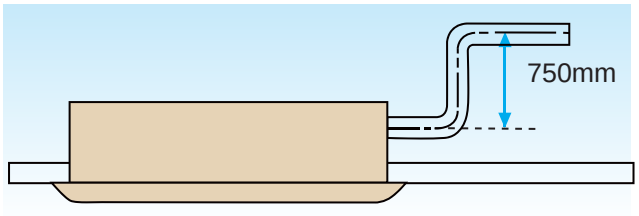
Optimized airflow duct with low resistance greatly reduces noise, minimum down to 24dB(A).

Stylish design and slim body

Thanks to the stylish appearance and slim body, the unit suits any room's decor and ambience. At only 300mm high, the unit requires only a small suspended ceiling space. Installation has no height limitations, which makes overall design features much more flexible.



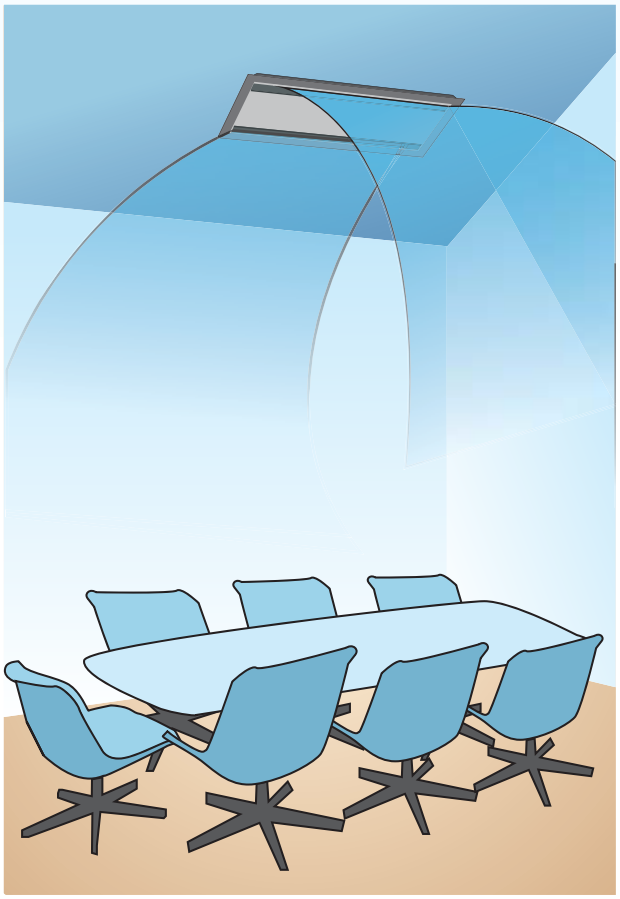
Standard built-in drain pump with 750mm pump head (higher pump head can be customized).



Flat-type suction grille design greatly simplifies maintenance work.

High airflow

High airflow for high ceiling application guarantees comfort in large space. It makes every person in the room get even distribution of airflow and temperature.



50Hz Specifications

Model			MDV-D22Q2/N1	MDV-D28Q2/N1	MDV-D36Q2/N1	MDV-D45Q2/N1	MDV-D56Q2/N1	MDV-D71Q2/N1
Power supply			1-phase, 220-240V, 50Hz					
Cooling capacity		kW	2.2	2.8	3.6	4.5	5.6	7.1
		kcal/h	1,900	2,400	3,100	3,900	4,800	6,100
		Btu/h	7,500	9,600	12,300	15,400	19,100	24,200
Heating capacity		kW	2.6	3.2	4.0	5.0	6.3	8.0
		kcal/h	2,200	2,800	3,400	4,300	5,400	6,900
		Btu/h	8,900	10,900	13,600	17,100	21,500	27,300
Power input	Cooling	W	57	57	60	92	108	154
	Heating		57	57	60	92	108	154
Rated current	Cooling	A	0.35	0.45	0.45	0.55	0.55	0.75
	Heating		0.35	0.45	0.45	0.55	0.55	0.75
Airflow rate(H/M/L)		m^3/h	654/530/410	654/530/410	725/591/458	850/670/550	980/800/670	1,200/1,000/770
		CFM	385/312/241	385/312/241	427/348/270	500/394/324	577/471/394	706/589/453
Sound pressure level(H/M/L)		dB(A)	33/29/24	36/32/29	36/32/29	39/35/30	39/35/30	44/40/34
Refrigerant		Type	R410A					
		Control method	EXV					
Body	Net dim.(W×H×D)	mm	1,172×299×591	1,172×299×591	1,172×299×591	1,172×299×591	1,172×299×591	1,172×299×591
	Gross dim.(W×H×D)		1,355×400×675	1,355×400×675	1,355×400×675	1,355×400×675	1,355×400×675	1,355×400×675
	Net/gross	kg	34/42.5	34/42.5	34/42.5	36.5/45	36.5/45	36.5/45
Panel	Net dim.(W×H×D)	mm	1,430×53×680	1,430×53×680	1,430×53×680	1,430×53×680	1,430×53×680	1,430×53×680
	Gross dim.(W×H×D)		1,525×130×765	1,525×130×765	1,525×130×765	1,525×130×765	1,525×130×765	1,525×130×765
	Net/gross	kg	10.5/15	10.5/15	10.5/15	10.5/15	10.5/15	10.5/15
Piping connections	L(flare)	mm	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ9.53	Φ9.53
	G(flare)	mm	Φ12.7	Φ12.7	Φ12.7	Φ12.7	Φ15.9	Φ15.9
	Drain piping	mm	OD Φ32	OD Φ32	OD Φ32	OD Φ32	OD Φ32	OD Φ32
Standard Controller		-	Wireless remote controller(RM05/BG(T)E-A)					

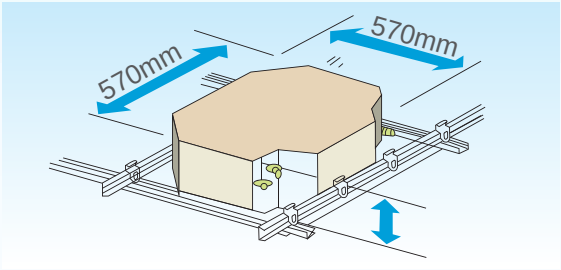
Notes:

1. Nominal cooling capacities are based on the following conditions: return air temp. : 80.6°F(27°C)DB,66.2°F(19°C)WB,and outdoor temp.: 95°F(35°C)DB,equivalent ref. piping: 26.25ft. (8m) (horizontal)
2. Nominal heating capacities are based on the following conditions: return air temp.: 68°F(20°C)DB, outdoor temp.: 44.6°F(7°C)DB,42.8°F(6°C)WB, and equivalent ref. Piping: 26.25ft. (8m) (horizontal)
3. Sound Level is measured 4.59ft. (1.4m) below the unit

Compact Four-way Cassette

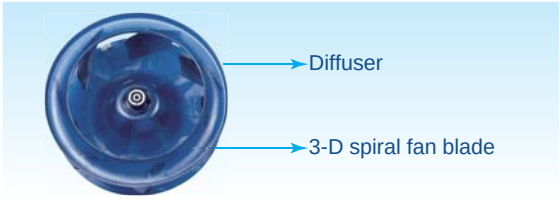
- Auto Restart
- Fresh Air
- Auto Addressing
- Cleanable Panel
- Follow Me
- Anti-Cold Air Function
- Built-in Drain Pump
- LED Display
- Super High Air Flow

Compact design, easy installation and maintenance



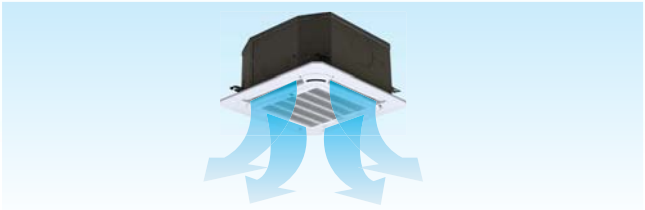
Extremely compact casing suits any room's decor and requires little space for installation on a low ceiling. Due to the compact body and light weight, all models can be installed without a hoist.

Quiet operation, gentle air supply



Streamline plate ensures quiet operation
Advanced 3-D spiral fan design reduces air resistance and operation noise.

Four-way uniform airflow

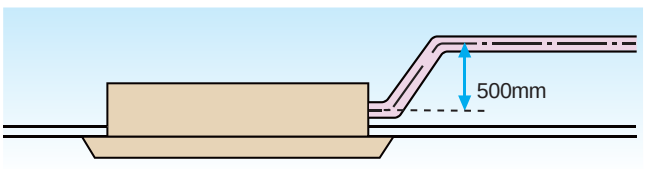


Four air discharge ports provide strong air flow circulation to cool or heat every corner of a room and evenly distribute temperature. High airflow mode can maximize the conditioning effect in rooms that are over 3m high.

360°Airflow outlet

360° air outlet provides strong air flow circulation to cool or heat every corner of a room and evenly distribute temperature.

Lift pump



Drain pump with a 500mm pump head is fitted as standard; maximum 600mm pump head is available.

50Hz Specifications

Model			MDV-D15Q4/N1-A3	MDV-D22Q4/N1-A3	MDV-D28Q4/N1-A3	MDV-D36Q4/N1-A3	MDV-D45Q4/N1-A3
Power supply			1-phase,220-240V,50Hz				
Cooling capacity		kW	1.5	2.2	2.8	3.6	4.5
		kcal/h	1300	1900	2400	3100	3900
		Btu/h	5100	7500	9600	12300	15400
Heating capacity		kW	1.7	2.4	3.2	4	5
		kcal/h	1500	2100	2700	3400	4300
		Btu/h	5800	8200	10900	13600	17100
Rated input	Cooling	W	36	50	50	56	56
	Heating		36	50	50	56	56
Rated current	Cooling	A	0.22	0.22	0.22	0.25	0.25
	Heating		0.22	0.22	0.22	0.25	0.25
Airflow rate(SH/H/M/L)		m^3/h	501/435/283/208	522/414/313/238	522/414/313/238	610/521/409/314	610/521/409/314
		CFM	295/256/167/98	307/244/184/140	307/244/184/140	359/307/241/185	359/307/241/185
Sound pressure level(H/M/L)		dB(A)	34.9/32.5/22.5	35.8/33.4/23.4	35.8/33.4/23.4	41.5/35.6/28.8	41.5/35.6/28.8
Refrigerant		Type	R410A				
		Control method	EXV				
Indoor Unit	Net dim.(W×H×D)	mm	570x260x570	570x260x570	570x260x570	570x260x570	570x260x570
	Gross dim.(W×H×D)		675x285x675	675x285x675	675x285x675	675x285x675	675x285x675
	NetGross	kg	16/19.5	16/20	16/20	18/22	18/22
Panel	Net dim.(W×H×D)	mm	647x50x647	647x50x647	647x50x647	647x50x647	647x50x647
	Gross dim.(W×H×D)		715x123x715	715x123x715	715x123x715	715x123x715	715x123x715
	NetGross	kg	2.4/4.5	2.4/4.5	2.4/4.5	2.4/4.5	2.4/4.5
Piping connections	L(flare)	mm	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ6.35
	G(flare)	mm	Φ12.7	Φ12.7	Φ12.7	Φ12.7	Φ12.7
	Drain piping	mm	OD Φ25	OD Φ25	OD Φ25	OD Φ25	OD Φ25
Standard Controller			Wireless remote controller (RM05/BG(T)E-A)				

Notes:

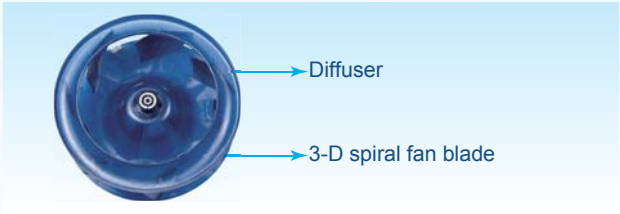
1. Nominal cooling capacities are based on the following conditions: return air temp. : 80.6°F(27°C)DB,66.2°F(19°C)WB,and outdoor temp.: 95°F(35°C)DB,equivalent ref. piping: 26.25ft. (8m) (horizontal)
2. Nominal heating capacities are based on the following conditions: return air temp.: 68°F(20°C)DB, outdoor temp.: 44.6°F(7°C)DB,42.8°F(6°C)WB, and equivalent ref. Piping: 26.25ft. (8m) (horizontal)
3. Sound Level is measured 4.59ft. (1.4m) below the unit

Four-way Cassette

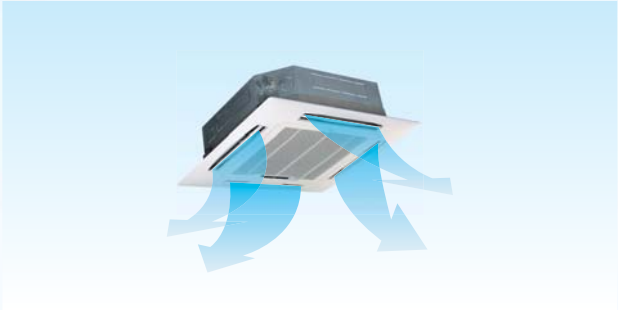
- Auto Restart
- Fresh Air
- Auto Addressing
- Cleanable Panel
- Follow Me
- Anti-Cold Air Function
- Built-in Drain Pump
- LED Display
- Super High Air Flow

Quiet operation, gentle air supply

- Streamline plate ensures quiet operation.
- Advanced 3-D spiral fan design reduces air resistance and operation noise.



Four-stage fan speed



Easy troubleshooting

By adding digital tube on the display board, Error Codes can be displayed directly for troubleshooting.

Four-way uniform air flow

Four air discharge ports provide strong air flow circulation to cool or heat every corner of a room and evenly distribute temperature. High airflow mode can maximize the conditioning effect in rooms that are over 3m high.

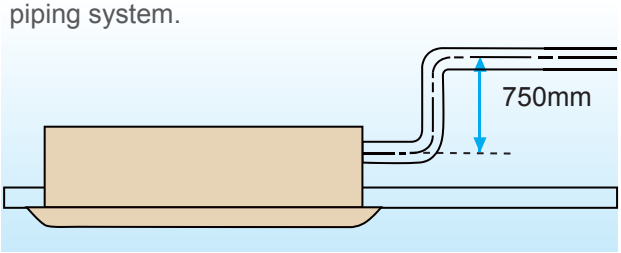
360°Airflow outlet

360° air outlet provides strong air flow circulation to cool or heat every corner of a room and evenly distribute temperature.

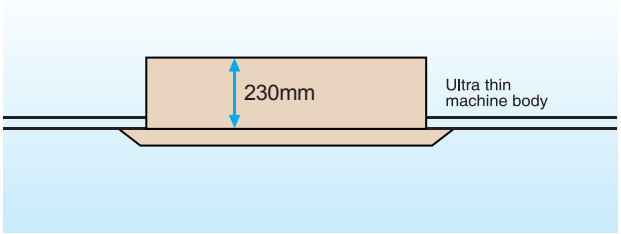
Reserved multi-function ports

High lift pump

Drain pump can take condenser water up to 750mm, which simplifies installation of the drain piping system.



Ultra-thin machine body (minimum height 230mm) simplifies installation and maintenance.



50Hz Specifications

Model			MDV-D28Q4/N1-D	MDV-D36Q4/N1-D	MDV-D45Q4/N1-D	MDV-D56Q4/N1-D	MDV-D71Q4/N1-D
Power supply			1-phase, 220-240V, 50Hz				
Cooling capacity		kW	2.8	3.6	4.5	5.6	7.1
		kcal/h	2,400	3,100	3,900	4,800	6,100
		Btu/h	9,600	12,300	15,400	19,100	24,200
Heating capacity		kW	3.2	4.0	5.0	6.3	8.0
		kcal/h	2,800	3,400	4,300	5,400	6,900
		Btu/h	10,900	13,600	17,100	21,500	27,300
Power input	Cooling	W	80	80	75	75	82
	Heating		80	80	75	75	82
Rated current	Cooling	A	0.4	0.4	0.4	0.4	0.5
	Heating		0.4	0.4	0.4	0.4	0.5
Airflow rate(SH/H/M/L)		m^3/h	1,187/847/766/640	1,187/847/766/640	1,121/864/755/658	1,121/864/755/658	1,385/1,157/955/749
		CFM	699/498/450/376	699/498/450/376	660/508/444/387	660/508/444/387	815/680/562/440
Sound pressure level(H/M/L)		dB(A)	42/38/35	42/38/35	42/38/35	42/38/35	45/42/39
Refrigerant		Type	R410A				
		Control method	EXV				
Body	Net dim.(W×H×D)	mm	904×230×840	904×230×840	904×230×840	904×230×840	904×230×840
	Gross dim.(W×H×D)		955×260×955	955×260×955	955×260×955	955×260×955	955×260×955
	Net/gross	kg	24/28	24/28	26/30	26/30	26/30
Panel	Net dim.(W×H×D)	mm	950×54.5×950	950×54.5×950	950×54.5×950	950×54.5×950	950×54.5×950
	Gross dim.(W×H×D)		1,000×60×1,000	1,000×60×1,000	1,000×60×1,000	1,000×60×1,000	1,000×60×1,000
	Net/gross	kg	6/9	6/9	6/9	6/9	6/9
Piping connections	L(flare)	mm	Φ6.35	Φ6.35	Φ6.35	Φ9.53	Φ9.53
	G(flare)	mm	Φ12.7	Φ12.7	Φ12.7	Φ15.9	Φ15.9
	Drain piping	mm	OD Φ32	OD Φ32	OD Φ32	OD Φ32	OD Φ32
Standard Controller		-	Wireless remote controller(RM05/BG(T)E-A)				

Model			MDV-D80Q4/N1-D	MDV-D90Q4/N1-D	MDV-D100Q4/N1-D	MDV-D112Q4/N1-D	MDV-D140Q4/N1-D
Power supply			1-phase, 220-240V, 50Hz				
Cooling capacity		kW	8.0	9.0	10.0	11.2	14.0
		kcal/h	6,900	7,700	8,600	9,600	12,000
		Btu/h	27,300	30,700	34,100	38,200	47,800
Heating capacity		kW	9.0	10.0	11.1	12.5	15.0
		kcal/h	7,700	8,600	9,500	10,800	12,900
		Btu/h	30,700	34,100	37,900	42,700	51,200
Power input	Cooling	W	97	160	160	160	170
	Heating		97	160	160	160	170
Rated current	Cooling	A	0.5	0.7	0.7	0.7	0.8
	Heating		0.5	0.7	0.7	0.7	0.8
Airflow rate(SH/H/M/L)		m^3/h	1,431/1,236/973/729	1,758/1,540/1,300/1,120	1,758/1,540/1,300/1,120	1,758/1,540/1,300/1,120	1,843/1,800/1,500/1,280
		CFM	842/727/572/429	1,035/906/765/659	1,035/906/765/659	1,035/906/765/659	1,085/1,059/883/753
Sound pressure level(H/M/L)		dB(A)	45/42/39	48/45/43	48/45/43	48/45/43	50/47/44
Refrigerant		Type	R410A				
		Control method	EXV				
Body	Net dim.(W×H×D)	mm	904×230×840	904×300×840	904×300×840	904×300×840	904×300×840
	Gross dim.(W×H×D)		955×260×955	955×330×955	955×330×955	955×330×955	955×330×955
	Net/gross	kg	26/30	32/37	32/37	32/37	32/37
Panel	Net dim.(W×H×D)	mm	950×54.5×950	950×54.5×950	950×54.5×950	950×54.5×950	950×54.5×950
	Gross dim.(W×H×D)		1,000×60×1,000	1,000×60×1,000	1,000×60×1,000	1,000×60×1,000	1,000×60×1,000
	Net/gross	kg	6/9	6/9	6/9	6/9	6/9
Piping connections	L(flare)	mm	Φ9.53	Φ9.53	Φ9.53	Φ9.53	Φ9.53
	G(flare)	mm	Φ15.9	Φ15.9	Φ15.9	Φ15.9	Φ15.9
	Drain piping	mm	OD Φ32	OD Φ32	OD Φ32	OD Φ32	OD Φ32
Standard Controller		-	Wireless remote controller(RM05/BG(T)E-A)				

Notes:

1. Nominal cooling capacities are based on the following conditions: return air temperature. : 27°CDB,19°CWB,outdoor temperature.:35°CDB, equivalent ref. Piping: 8m(horizontal)
2. Nominal heating capacities are based on the following conditions: return air temperature.: 20°CDB,outdoor temperature.: 7°CDB, 6°CWB,equivalent ref. Piping: 8m(horizontal)
3. Sound level is measured at 1.4m below the unit.

Low Static Pressure Duct

- Auto Restart
- Fresh Air
- Auto Addressing
- Cleanable Panel
- Follow Me
- Anti-Cold Air Function
- Wired Controller
- Super High Air Flow

Low sound level

Utilizes the centrifugal type blower, provides a minimum noise level of 24dB (A), an excellent choice for hotels and other sound-sensitive places.

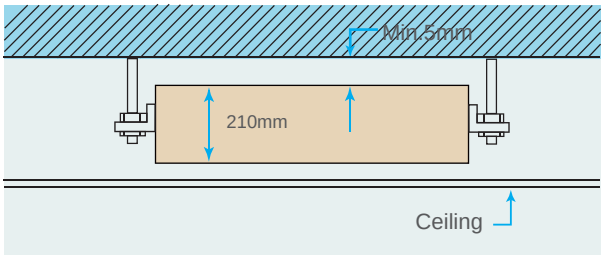
V shape evaporator-- good for heat exchanging

V shape evaporator design enhances heat exchanging efficiency about 22%.

Convenient for installation and maintenance

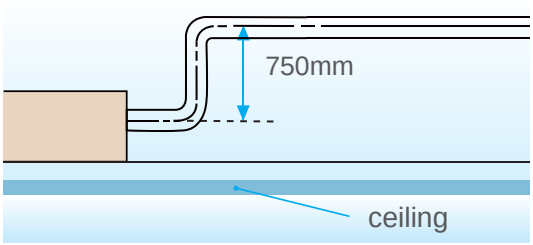
The EXV is fixed inside the indoor unit.

Compact design



Uniform 210mm in height, compact design for easy locate where space ceiling is limited,
The whole body adopts fireproof plastic material, the minimum weight is 14kg.

Options



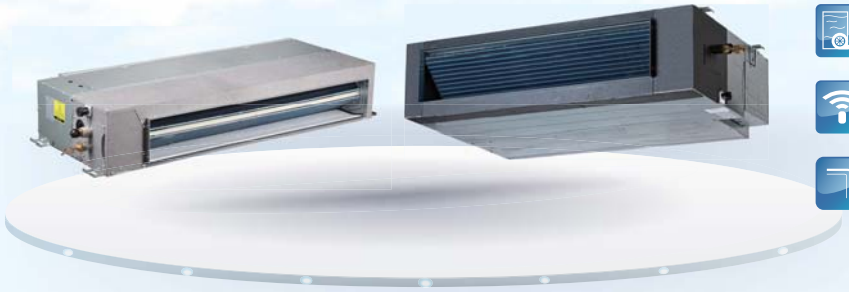
A drain pump with 750mm pumphead is an optional accessory.

50Hz Specifications

Model			MDV-D18T3/N1-C	MDV-D22T3/N1-C	MDV-D28T3/N1-C	MDV-D36T3/N1-C	MDV-D45T3/N1-C	MDV-D56T3/N1-C	MDV-D71T3/N1-C
Power supply			220-240V~1Ph~50Hz						
Cooling capacity		kW	1.8	2.2	2.8	3.6	4.5	5.6	7.1
		kcal/h	1500	1900	2400	3100	3900	4800	6100
		Btu/h	6100	7500	9600	12300	15400	19100	24200
Heating capacity		kW	2.2	2.6	3.2	4	5	6.3	8
		kcal/h	1900	2200	2800	3400	3900	5400	6900
		Btu/h	7500	8900	10900	13600	17100	21500	27300
Rated input	Cooling	W	59	59	59	65	105	105	130
	Heating		59	59	59	65	105	105	130
Rated current	Cooling	A	0.31	0.31	0.31	0.36	0.36	0.36	0.5
	Heating		0.31	0.31	0.31	0.36	0.36	0.36	0.5
Airflow rate(SH/H/M/L)		m³/h	606(30pa)/578/512/409			646(30pa) /617/551/441	803(pa)/824/690/609		1207(30pa) /1060/970/811
		CFM	357/340/301/241			380/363/324/260	473/485/406/358		710/624/571/477
External Static Pressure		Pa	10(10~30)	10(10~30)	10(10~30)	10(10~30)	10(10~30)	10(10~30)	10(10~30)
Sound pressure level (H/M/L)		dB(A)	35/27/24	35/27/24	35/27/24	38/32/28	39/32/29	39/32/29	41/33/30
Refrigerant type		Type	R410A	R410A	R410A	R410A	R410A	R410A	R410A
		Control type	EXV	EXV	EXV	EXV	EXV	EXV	EXV
Indoor unit	Dimension (W×H×D)	mm	740×210×470	740×210×470	740×210×470	740×210×470	960×210×470	960×210×470	1180×210×470
	Packing (W×H×D)	mm	910×230×510	910×230×510	910×230×510	910×230×510	1130×230×510	1130×230×510	1350×230×510
	Net(Gross) weight	kg	14/17.5	14/17.5	14/17.5	14/17.5	17.5/22	17.5/22	21/26.5
Piping connections	L(flare)	mm	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ9.53	Φ9.53
	G(flare)	mm	Φ12.7	Φ12.7	Φ12.7	Φ12.7	Φ12.7	Φ15.9	Φ15.9
	Drain piping	mm	Φ25	Φ25	Φ25	Φ25	Φ25	Φ25	Φ25
Standard Controller			Wireless remote controller (RM05/BG(T)E-A)						

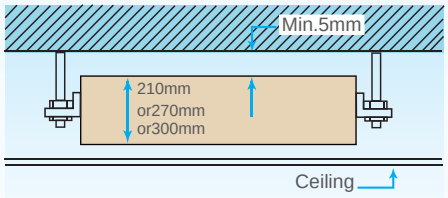
Notes:
1. Nominal cooling capacities are based on the following conditions: return air temp.: 27°CDB, 19°CWB, and outdoor temp.:35°CDB, equivalent ref. piping: 8m (horizontal)
2. Nominal heating capacities are based on the following conditions: return air temp.: 20°CDB, outdoor temp.: 7°CDB, 6°CWB, and equivalent ref. Piping: 8m (horizontal)
3.Sound level is measured at 1.4m below the air outlet.
* External static pressure is based on high speed indoor air flow.

Concealed Duct Unit (A5 Type)



- Auto Restart
- Fresh Air
- Follow Me
- Anti-Cold Air Function
- Built-in Drain Pump
- Wired Controller
- Auto Addressing
- Cleanable Panel
- Connectable To Duct
- Super High Air Flow

Compact size



Only 210mm (15~71 models) or 270mm (80 to 112 models) or 300mm (140 model) in height.

External static pressure

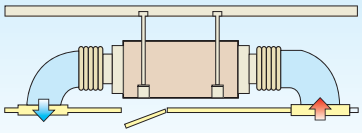
Four speed fan motor (Super high speed is optional)

Change the wiring connection from ‘SH’ to ‘H’ to change the ESP.

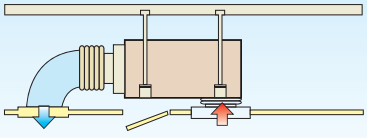
Convenient installation

The EXV is fixed inside of the indoor unit.
Standard filter is housed in an aluminum frame, which is removable from the bottom in the downward direction.
Suction chamber is included as standard equipment.
Fresh air hole, air inlet/outlet flange are standard for easy duct connection.
A rear air inlet is standard and an inlet at the bottom is optional. Both use the same connectable duct.

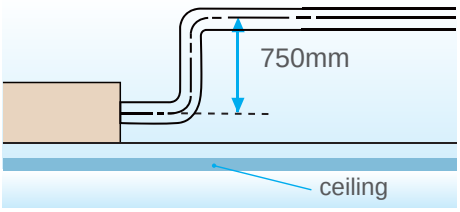
Air intake from back



Air intake from below



drain pump as standard



Flexible control and easy maintenance

Standard wired remote controller KJR-29B1/BK-E.
The electrical control box can be removed 1m away from the unit for easy maintenance access. Customers need to request this service in advance for it is done at Midea CAC factory.
Standard functional ports are included such as Remote On/Off Dry contact switch and Alarm signal output (220V).

50Hz Specifications

Model			MDV-D15T2 /N1X-DA5	MDV-D22T2 /N1X-DA5	MDV-D28T2 /N1X-DA5	MDV-D36T2 /N1X-DA5	MDV-D45T2 /N1X-DA5	MDV-D56T2 /N1X-DA5
Power supply				1-phase,220-240V,50Hz				
Cooling capacity		kW	1.5	2.2	2.8	3.6	4.5	5.6
		kcal/h	1290	1900	2400	3100	3900	4800
		Btu/h	5100	7500	9600	12300	15400	19100
Heating capacity		kW	1.7	2.6	3.2	4	5	6.3
		kcal/h	1500	2200	2800	3400	4300	5400
		Btu/h	5800	8900	10900	13600	17100	21500
Rated input	Cooling	W	56	57	57	61	98	103
	Heating		56	57	57	61	98	103
Rated current	Cooling	A	0.31	0.31	0.31	0.33	0.36	0.36
	Heating		0.31	0.31	0.31	0.33	0.36	0.36
Airflow rate(SH/H/M/L)		m^3/h	588(30pa)/538/456/375			614(30pa)/597 /514/429	763(30pa)/811 /684/575	763(30pa)/811 /684/575
		CFM	346/317/268/221			361/351/303/253	449/477/403/338	449/477/403/338
ESP(external static pressure)		Pa	10(10-30)	10(10-30)	10(10-30)	10(10-30)	10(10-30)	10(10-30)
Sound pressure level(H/M/L)		dB(A)	35.8/34.6/31.4	36/35/32	37/35/32	38.6/37.5/33.8	39/37.9/34	39/37.9/34
Refrigerant		Type	R410A					
		Control method	EXV					
Indoor Unit	Net dim.(W×H×D)	mm	740x210x500	740x210x500	740x210x500	740x210x500	960x210x500	960x210x500
	Gross dim.(W×H×D)		870×285×525	870×285×525	870×285×525	870×285×525	1,115x285x525	1,115x285x525
	NetGross	kg	17.5/20.5	17.5/20	17.5/20	17.5/20	22.5/26	22.5/26
Piping connections	L(flare)	mm	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ9.53
	G(flare)	mm	Φ12.7	Φ12.7	Φ12.7	Φ12.7	Φ12.7	Φ15.9
	Drain piping	mm	OD Φ25	OD Φ25	OD Φ25	OD Φ25	OD Φ25	OD Φ25
Standard Controller			Wired controller KJR-29B1/BK-E (6 meters connection wire)					

Model			MDV-D71T2/N1-DA5	MDV-D80T2/N1-BA5	MDV-D90T2/N1-BA5	MDV-D112T2/N1-BA5	MDV-D140T2/N1-BA5
Power Supply			220～240V-1Ph-50Hz				
Capacity	Cooling	kW	7.1	8	9	11.2	14
		kcal/h	6,100	6,900	7,700	9,600	12,000
		btu/h	24,200	27,300	30,700	38,200	47,800
	Heating	kW	8	9	10	12.5	15.5
		kcal/h	6,900	7,700	8,600	10,800	13,300
		Btu/h	27,300	30,700	34,100	42,700	52,900
Power (Cooling)	Input	W	105	198	200	313	274
	Rated Current	A	0.47	1.0	1.0	1.8	1.55
Power (Heating)	Input	W	105	198	200	313	274
	Rated Current	A	0.47	1.0	1.0	1.8	1.55
Indoor air flow (SH/H/M/L)		m^3/h	1127(30pa)/1029/934/781	1388(50pa)/1345/1165/1013	1388(50pa)/1345/1165/1013	1851(80pa)/1800/1556/1400	1745(100pa)/1905/1636/1400
		CFM	663/606/550/460	817/792/686/596	817/792/686/596	1,089/1,059/916/824	1,027/1121/963/824
ESP (external static pressure)		Pa	10(10~30)	20(10~50)	20(10~50)	40(10~80)	40(10~100)
Sound pressure level(H/M/L)		dB(A)	41.4/39/35	45.4/39.8/37	45.4/39.8/37	48.0 /41.9/38	47.7/43.2/39.0
Refrigerant	Type		R410A				
	Control method		EXV				
Net dimension	W×H×D	mm	1,180x210x500	1,230×270×775	1,230×270×775	1,230×270×775	1,290×300×865
Packing dimension	W×H×D	mm	1,335x285x525	1,355×350×795	1,355×350×795	1,355×350×795	1,400×375×925
Net/Gross Weight		kg	28/31.5	38/46.5	40/48	40/48	49/58
Piping Connections	L(flare)	mm	Φ9.53	Φ9.53	Φ9.53	Φ9.53	Φ9.53
	G(Flare)	mm	Φ15.9	Φ15.9	Φ15.9	Φ15.9	Φ15.9
	Drain piping	mm	OD Φ25	OD Φ25	OD Φ25	OD Φ25	OD Φ25
Standard Controller		-	Wired controller KJR-29B1/BK-E (6 meters connection wire)				

Notes:
1. Nominal cooling capacities are based on the following conditions: return air temperature: 27°CDB, 19°CWB, and outdoor temperature:35°CDB, equivalent ref. piping: 8m (horizontal)
2. Nominal heating capacities are based on the following conditions: return air temperature: 20°CDB, outdoor temperature: 7°CDB, 6°CWB, and equivalent ref. Piping: 8m (horizontal)
3. Sound level is measured at 1.4m below the air out-let.
* External static pressure is based on high speed indoor air flow.
* Specifications are subject to change without prior notice for product improvement.

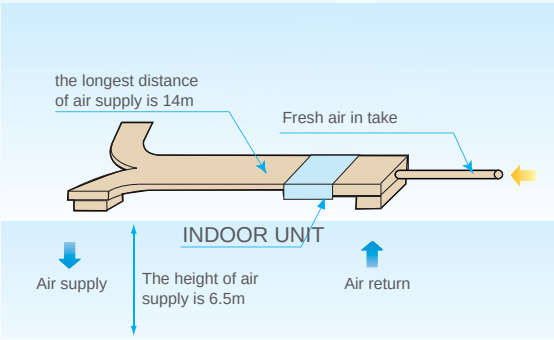
TREO:

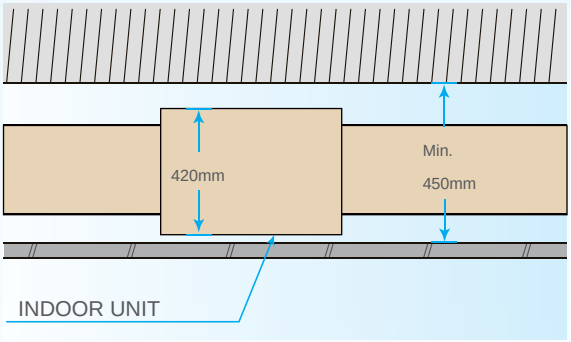
High Static Pressure Duct

- Auto Restart
- Fresh Air
- Auto Addressing
- Cleanable Panel
- Follow Me
- Anti-Cold Air Function
- Wired Controller
- Connectable To Duct

Flexible duct design

External static pressure can be up to 196Pa (models 71 to 160) or 280Pa (models 200 to 560).





The maximum distance for air supply is about 14m at height of 6.5m.
With a 420mm (models 71 to 160) thick body, the minimum distance required above the ceiling is 450mm.

Greater flexibility with the four-speed fan

Four speed fan motor(model 71 to 160)

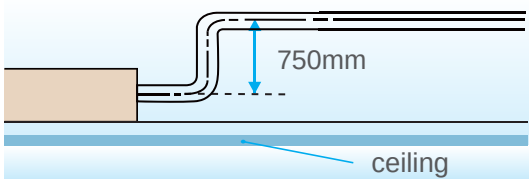
Convenient installation

The EXV is fixed inside the indoor unit (models 70-160), requires no extra connection.
Standard filter is housed in an aluminum frame, which is removable from the bottom in the downward direction.
Flange for air in/outlet duct connection is standard.

Flexible control and convenient for maintenance

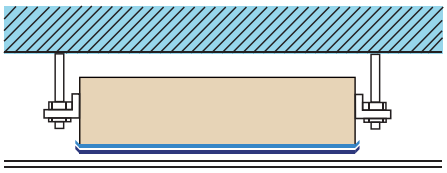
Wired remote controller KJR-29B1/BK-E is as standard, and wireless remote controller RM05/BG(T)E-A is as an option.
The display board is connected to the E-box in factory, easier troubleshooting by LED display.
Easy access filters both at the rear & bottom
Standard functional port such as remote on/off dry contact.

Option



Drain pump with 750mm pump head is optional (models 71 to 160)

Double-skin drainage pan



Double-skin drainage pan provide double protection for ceilings (models 71 to 160 and models 400 to 560)

50Hz Specifications

Model			MDV-D71T1/N1-B	MDV-D80T1/N1-B	MDV-D90T1/N1-B	MDV-D112T1/N1-B	MDV-D140T1/N1-B	MDV-D160T1/N1-B
Power Supply			220～240V-1Ph-50Hz					
Capacity	Cooling	kW	7.1	8	9	11.2	14	16
		kcal/h	6,100	6,900	7,700	9,600	12,000	13,800
		Btu/h	24,200	27,300	30,700	38,200	47,800	54,600
	Heating	kW	8	9	10	12.5	16	17
		kcal/h	6,900	7,700	8,600	10,800	13,800	14,600
		Btu/h	27,300	30,700	34,100	42,700	54,600	58,000
Power (Cooling)	Input	W	263	263	423	524	724	940
	Rated Current	A	1.23	1.23	1.87	2.3	2.85	4.77
Power (Heating)	Input	W	263	263	423	524	724	940
	Rated Current	A	1.23	1.23	1.87	2.3	2.85	4.77
Indoor air flow (H/M/L)		m^3/h	1,443/1,361/1,218	1,416/1,338/1,220	1,951/1,741/1,518	2,116/1,936/1,520	3,000/2,618/2,226	3,620/3,044/2,744
		CFM	849/801/717	883/788/718	1,148/1,025/893	1,246/1,140/895	1,766/1,541/1,310	2,131/1,792/1,615
ESP (external static pressure)		Pa	25(25~ 196)	37(37~ 196)	37(37~ 196)	50(50~ 196)	50(50~ 196)	50(50~ 196)
Sound pressure level(H/M/L)		dB(A)	48/46/44	48/46/44.5	52/49/47	52/49/47	53/50/48	54/52/50
Refrigerant	Type		R410A					
	Control method		EXV					
Net dimension	W×H×D	mm	952×420×690	952×420×690	952×420×690	952×420×690	1,300×420×691	1,300×420×691
Packing dimension	W×H×D	mm	1,090×440×768	1,090×440×768	1,090×440×768	1,090×440×768	1,436×450×768	1,436×450×768
Net/Gross Weight		kg	45/50	45/50	46.5/52.4	50.6/56	68/70	70/77.5
Piping Connections	L(flare)	mm	Φ9.53	Φ9.53	Φ9.53	Φ9.53	Φ9.53	Φ9.53
	G(flare)	mm	Φ15.9	Φ15.9	Φ15.9	Φ15.9	Φ15.9	Φ15.9
	Drain piping	mm	ODΦ32	ODΦ32	ODΦ32	ODΦ32	ODΦ32	ODΦ32
Standard Controller		-	Wired controller KJR-29B1/BK-E (6 meters connection wire)					

Model			MDV-D200T1/N1-B	MDV-D250T1/N1-B	MDV-D280T1/N1-B	MDV-D400T1/N1	MDV-D450T1/N1	MDV-D560T1/N1
Power Supply			220～240V-1Ph-50Hz					
Capacity	Cooling	kW	20	25	28	40	45	56
		kcal/h	17,200	21,500	24,100	34,400	38,700	48,200
		Btu/h	68,200	85,300	95,500	136,500	153,500	191,100
	Heating	kW	22.5	26	31.5	45	50	63
		kcal/h	19,400	22,400	27,100	38,700	43,000	54,200
		Btu/h	76,800	88,700	107,500	153,500	170,600	214,960
Power (Cooling)	Input	W	1516	1516	1516	2700	2700	3400
	Rated Current	A	8.6	8.6	8.6	12.5	12.5	15.5
Power (Heating)	Input	W	1516	1516	1516	2700	2700	3400
	Rated Current	A	8.6	8.6	8.6	12.5	12.5	15.5
Indoor air flow (H/M/L)		m^3/h	3,840/3,595/2,970	3,840/3,595/2,970	3,840/3,595/2,970	7,472/6,072/4,995	7,472/6,072/4,995	9,550/7,950/6,600
		CFM	2,260/2,116/1,748	2,260/2,116/1,748	2,260/2,116/1,748	4,398/3,574/2,940	4,398/3,574/2,940	5,621/4,679/3,884
ESP (external static pressure)		Pa	200(50~280)	200(50~280)	200(50~280)	200(50~280)	200(50~280)	200(50~280)
Sound pressure level(H/M/L)		dB(A)	59/55/52	59/55/52	59/55/52	61/59/56	61/59/56	63/60/57
Refrigerant	Type		R410A					
	Control method		EXV					
Net dimension	W×H×D	mm	1,443×470×810	1,443×470×810	1,443×470×810	1,970×668×902.5	1,970×668×902.5	1,970×668×902.5
Packing dimension	W×H×D	mm	1,509×550×990	1,509×550×990	1,509×550×990	2,095×800×964	2,095×800×964	2,095×800×964
Net/Gross Weight		kg	115/129	115/129	115/129	232/245	232/245	235/250
Piping Connections	L(flare)	mm	Φ9.53×2	Φ9.53×2	Φ9.53×2	Φ12.7×2	Φ12.7×2	Φ15.9×2
	G(flare)	mm	Φ15.9×2	Φ15.9×2	Φ15.9×2	Φ22.2x2	Φ22.2x2	Φ28.6×2
	Drain piping	mm	ODΦ32	ODΦ32	ODΦ32	ODΦ32	ODΦ32	ODΦ32
Standard Controller		-	Wired controller KJR-29B1/BK-E (6 meters connection wire)					

Notes:

1. Nominal cooling capacities are based on the following conditions: return air temperature: 27°CDB, 19°CWB, and outdoor temperature:35°CDB, equivalent ref. piping: 8m (horizontal)
2. Nominal heating capacities are based on the following conditions: return air temperature: 20°CDB, outdoor temperature: 7°CDB, 6°CWB, and equivalent ref. Piping: 8m (horizontal)
3. Sound level is measured at 1.4m below the air out-let.

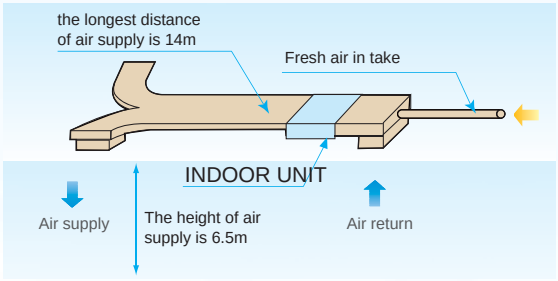
* External static pressure is based on high speed indoor air flow.
* Specifications are subject to change without prior notice for product improvement.

Fresh Air Processing Unit

Healthy and comfortable

Fresh air is imported, provides a healthy and comfortable living environment.

100% Fresh air processing unit

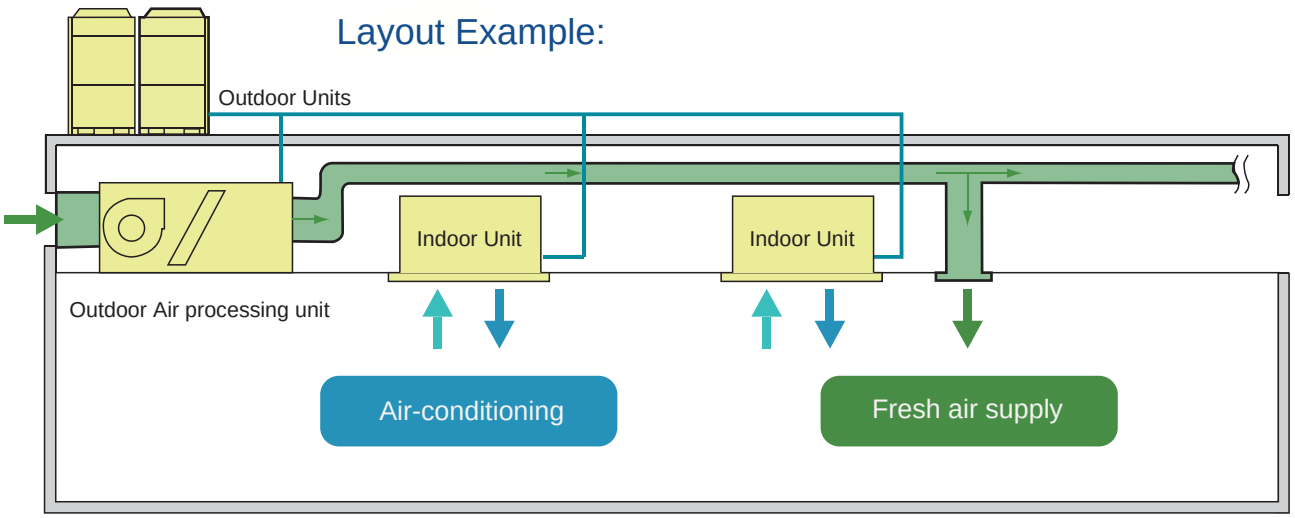


Both fresh air filtration and heating/cooling can be achieved in a single system.
Indoor units and fresh air processing unit can be connected to the same refrigerant system, increasing design flexibility and greatly reducing total system costs.

High external static pressure

External static pressure can be up to 220Pa(models 125 to 140) and 260Pa(models 200 to 280) for more flexible duct applications. The maximum distance of air supply is about 14m and the maximum height of air supply is about 6.5m.

Innovative air supply technology for excellent room temperature control



50Hz Specifications

Model			MDV-D125T1/N1-FA	MDV-D140T1/N1-FA	MDV-D200T1/N1-FA	MDV-D250T1/N1-FA	MDV-D280T1/N1-FA
Power Supply			1-phase, 220-240V, 50Hz				
Capacity	Cooling	kW	12.5	14	20	25	28
		kcal/h	10,800	12,000	17,200	21,500	24,100
		Btu/h	42,700	47,800	68,200	85,300	95,500
	Heating	kW	10.5	12	18	20	22
		kcal/h	9,000	10,300	15,550	17,200	18,900
		Btu/h	35,800	41,000	61,400	68,200	75,100
Power (Cooling)	Input	W	430	430	1063	1,063	1063
	Rated Current	A	2.4	2.4	5.3	5.6	5.6
Power (Heating)	Input	W	461	430	1063	1,063	1,063
	Rated Current	A	2.4	2.4	5.3	5.6	5.6
Air flow (H/M/L)		m^3/h	2,142/1,870/1,611	2,142/1,870/1,611	3,210/2,700/2,200	3,205/2,750/2,300	3,205/2,750/2,300
		CFM	1,261/1101/948	1,261/1101/948	1,889/1,589/1,295	1,886/1,619/1,354	1,886/1,619/1,354
ESP (external static pressure)		Pa	50(50~196)	50(50~196)	200(50~280)	200(50~280)	200(50~280)
Sound pressure level(H/M/L)		dB(A)	54/52/50	54/52/50	54/53/51	55/54/52	55/54/52
Refrigerant	Type		R410A				
	Control method		EXV				
Net dimension	W×H×D	mm	1,300×420×690	1,300×420×690	1,443×470×810	1,443×470×810	1,443×470×810
Packing dimension	W×H×D	mm	1,436×450×768	1,436×450×768	1,509×550×990	1,509×550×990	1,509×550×990
Net/Gross Weight		kg	69.5/76	69.5/76	115/125	115/125	115/125
Piping Connections	L(flare)	mm	Φ9.53	Φ9.53	Φ9.53	Φ9.53	Φ9.53
	G(flare)	mm	Φ15.9	Φ15.9	Φ15.9	Φ15.9	Φ15.9
	Drain piping	mm	OD Φ25	OD Φ25	OD Φ32	OD Φ32	OD Φ32
Standard Controller		-	Wired controller KJR-29B1/BK-E (6 meters connection wire)				

Notes:
1. Nominal cooling capacities are based on the following conditions: outdoor air temp.:91.4°F(33°C)DB，75.2°F(24°C)WB, equivalent ref. piping:26.25ft. (8m)(horizontal).
2. Nominal heating capacities are based on the following conditions: outdoor air temp.:32°F(0°C)DB，30.2°F(-1°C)WB, equivalent ref. piping:26.25ft. (8m)(horizontal).
3. Sound level is measured 4.59ft.(1.4m) from the air out-let.
* External static pressure are based on high speed indoor air flow.
* Specifications are subject to change without prior notice for product improvement.
* When outdoor-air processing units are connected, the total connection capacity must be within 50% to 100% of that of the outdoor units.
* When outdoor-air processing units and standard indoor units are connected, the total connection capacity of the outdoor-air processing units must not exceed 30% of that of the outdoor units.
* Outdoor-air processing units can be used without indoor units.
* The fresh air processing unit is not available for V4+R system.Connection Conditions:The following restrictions must be observed in order to maintain the indoor units connected to the same system.

Ceiling & Floor

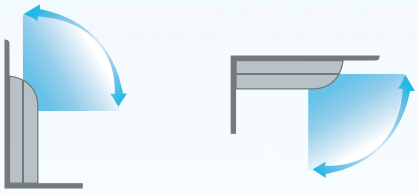
- Auto Restart
- Fresh Air
- Auto Addressing
- Cleanable Panel
- Follow Me
- Anti-Cold Air Function
- Built-in Drain Pump
- LED Display

Panel with LED display

The front panel and display panel have different colors to choose: white and brown for big panel, blue and brown for small panel. Other colors are available if required.

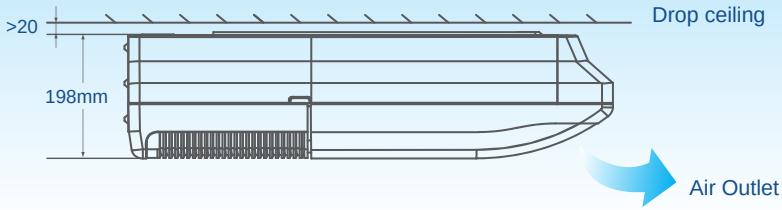
Convenient installation

- The unit even can be easily installed at the corner of a narrow ceilings.
- It is especially useful when central installation is impossible due to features such as lights.



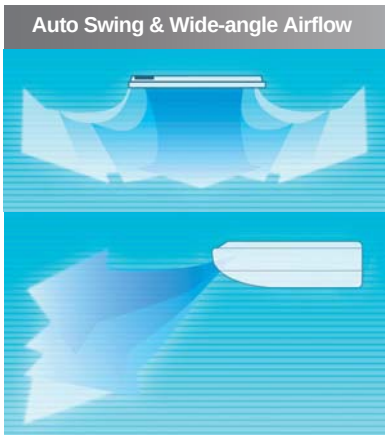
The unit can be installed either horizontally on the ceiling or vertically against the wall.

Quiet and comfortable environment



- The slim and sleek design starting at just 30kg enables quick, easy and neat installation.
- Low noise operations; minimum 36 dB(A)

Auto swing and wide angle air flow



1.Auto horizontal and auto vertical swing functions for more even and comfortable airflow.
2.Three air flow speeds: low, medium and high; double air guides.
3.Adopt electrical expansion valve, ensuring precise flow control, lower modulation noise when EXV operating.
4.Smoother airflow and less turbulence due to the multi-blade fan and the air guide design.

50Hz Specifications

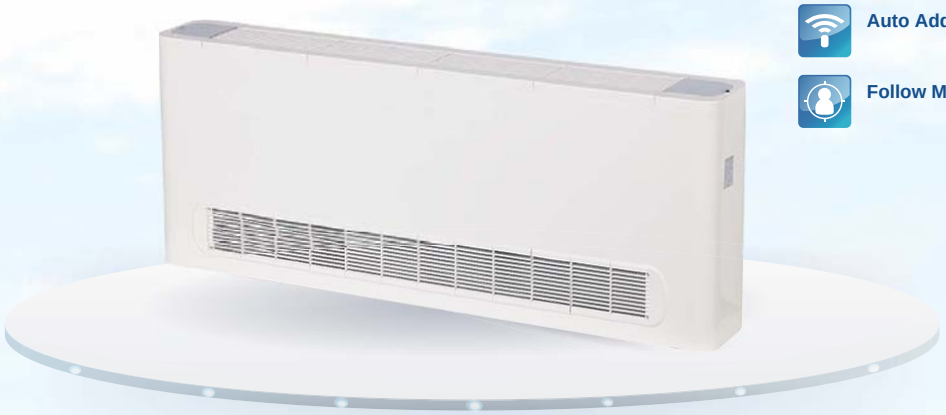
Model			MDV-D36DL/N1-C	MDV-D45DL/N1-C	MDV-D56DL/N1-C	MDV-D71DL/N1-C	MDV-D80DL/N1-C
Power supply			1-phase, 220-240V, 50Hz				
Cooling capacity		kW	3.6	4.5	5.6	7.1	8
		kcal/h	3,100	3,900	4,800	6,100	6,900
		Btu/h	12,300	15,400	19,100	24,200	27,300
Heating capacity		kW	4	5	6.3	8	9
		kcal/h	3,400	4300	5,400	6,800	7,700
		Btu/h	13,600	17,100	21,500	27,300	30,700
Power input	Cooling	W	49	120	122	125	130
	Heating		49	120	122	125	130
Rated current	Cooling	A	0.23	0.67	0.67	0.67	0.83
	Heating		0.23	0.67	0.67	0.67	0.83
Airflow rate(H/M/L)		m^3/h	650/570/500	800/600/500	800/600/500	800/600/500	1,200/900/700
		CFM	383/335/294	471/353/294	471/353/294	471/353/294	706/530/412
Sound pressure level(H/M/L)		dB(A)	40/38/36	43/41/38	43/41/38	43/41/38	45/43/40
Refrigerant		Type	R410A				
		Control method	EXV				
Net dimension(W×H×D)		mm	990×203×660	990×203×660	990×203×660	990×203×660	1,280×203×660
Packing dimension(W×H×D)		mm	1,089×296×744	1,089×296×744	1,089×296×744	1,089×296×744	1,379×296×744
Net weight		kg	26	28	28	28	34.5
Gross weight		kg	32	34	34	34	41
Piping connections	L(flare)	mm	Φ6.35	Φ6.35	Φ9.53	Φ9.53	Φ9.53
	G(flare)	mm	Φ12.7	Φ12.7	Φ15.9	Φ15.9	Φ15.9
	Drain piping	mm	OD Φ16	OD Φ16	OD Φ16	OD Φ16	ODΦ16
Standard Controller		-	Wireless remote controller(RM05/BG(T)E-A)				

Model			MDV-D90DL/N1-C	MDV-D112DL/N1-C	MDV-D140DL/N1-C	MDV-D160DL/N1-C
Power supply			1-phase, 220-240V, 50Hz			
Cooling capacity		kW	9	11.2	14	16
		kcal/h	7,700	9,600	13,300	13,800
		Btu/h	30,700	38,200	47,800	54,600
Heating capacity		kW	10	12.5	15	18
		kcal/h	8,600	10,800	12,900	15,500
		Btu/h	34,100	42,700	51,200	61,400
Power input	Cooling	W	130	182	182	300
	Heating		130	182	182	300
Rated current	Cooling	A	0.83	1.11	1.11	1.41
	Heating		0.83	1.11	1.11	1.41
Airflow rate(H/M/L)		m^3/h	1,200/900/700	1,980/1,860/1,730	1,980/1,860/1,730	1,980/1,860/1,730
		CFM	706/530/412	1,165/1,095/1,018	1,165/1,095/1,018	1,165/1,095/1,018
Sound pressure level(H/M/L)		dB(A)	45/43/40	47/45/42	47/45/42	47/45/42
Refrigerant		Type	R410A			
		Control method	EXV			
Net dimension(W×H×D)		mm	1,280×203×660	1,670×244×680	1,670×244×680	1,670×285×680
Packing dimension(W×H×D)		mm	1,379×296×744	1,764×329×760	1,764×329×760	1,775×377×760
Net weight		kg	34.5	54	54	57.5
Gross weight		kg	41	59	59	63.5
Piping connections	L(flare)	mm	Φ9.53	Φ9.53	Φ9.53	Φ9.53
	G(flare)	mm	Φ15.9	Φ15.9	Φ15.9	Φ15.9
	Drain piping	mm	ODΦ16	ODΦ16	ODΦ16	ODΦ16
Standard Controller		-	Wireless remote controller(RM05/BG(T)E-A)			

Notes:

1. Nominal cooling capacities are based on the following conditions: return airtemperature.: 27°CDB, 19°CWB, and outdoor temperature.:35°CDB, equivalent ref. piping: 8m (horizontal)
2. Nominal heating capacities are based on the following conditions: return air temperature.: 20°CDB, outdoor temp.: 7°CDB, 6°CWB, and equivalent ref. Piping: 8m (horizontal)
3. Floor standing :Sound level is measured 1m from air-outlet in horizontal distance, 1m above the floor in vertical distance.
   Ceiling mounted:Sound level is measured 1m from air-outlet in horizontal distance,1m from air-outlet in vertical distance.
   Specifications are subject to change without prior notice for product improvement.

Floor Standing



- Auto Restart
- Cleanable Panel
- Auto Addressing
- Anti-Cold Air Function
- Follow Me
- LED Display

Easy installation

Floor standing types can be hung on the wall or installed on the floor. The floor type of unit can make cleaning and maintenance much easier. Running the piping from the rear allows the unit to be hung on walls. Cleaning under the unit, where dust tends to accumulate, is considerably easier.

Easy maintenance

Filter is provided as a standard accessory. It can be removed and cleaned easily thanks to sophisticated design and the product's removable blades.

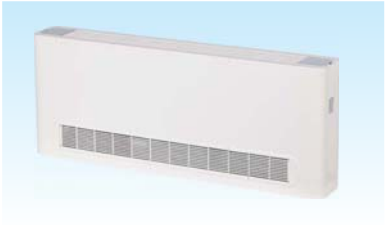
The streamlined appearance harmonizes the unit with a given room's interior decor. All metal parts are made of commercial grade galvanized steel for maximum protection against corrosion.

Saves installation space

Concealed floor standing type

F3B series concealed type

The body is concealed in the skirting board to improve aesthetics. The body is just 212mm deep, and can be installed at the room's perimeter. Special installation methods eliminate noise in the room area.



Air intake from front(F4 series)

Air intake from below(F5 series)

50Hz Specifications

Model			MDV-D22Z/N1-F3B	MDV-D28Z/N1-F3B	MDV-D36Z/N1-F3B	MDV-D45Z/N1-F3B	MDV-D56Z/N1-F3B	MDV-D71Z/N1-F3B	MDV-D80Z/N1-F3B
			MDV-D22Z/N1-F4	MDV-D28Z/N1-F4	MDV-D36Z/N1-F4	MDV-D45Z/N1-F4	MDV-D56Z/N1-F4	MDV-D71Z/N1-F4	MDV-D80Z/N1-F4
			MDV-D22Z/N1-F5	MDV-D28Z/N1-F5	MDV-D36Z/N1-F5	MDV-D45Z/N1-F5	MDV-D56Z/N1-F5	MDV-D71Z/N1-F5	MDV-D80Z/N1-F5
Power supply			1-phase, 220-240V, 50Hz						
Cooling capacity		kW	2.2	2.8	3.6	4.5	5.6	7.1	8
		kcal/h	1,900	2,400	3,100	3,900	4,800	6,100	6,900
		Btu/h	7,500	9,500	12,300	15,400	19,100	242,00	27,300
Heating capacity		kW	2.4	3.2	4	5	6.3	8	9
		kcal/h	2,100	2,800	3,400	4,300	5,400	6,900	7,700
		Btu/h	8,200	10,900	13,600	17,100	21,500	27,300	30,700
Power input	Cooling	W	40	46	46	49	88	130	130
	Heating		40	46	46	49	88	130	130
Rated current	Cooling	A	0.19	0.2	0.19	0.22	0.38	0.57	0.57
	Heating		0.19	0.2	0.15	0.22	0.38	0.57	0.57
Airflow rate(H/M/L)		m^3/h	530/456/400	569/485/421	624/522/375	660/542/440	1,150/970/830	1,380/1,100/870	1,380/1,100/870
		CFM	312/268/235	335/285/248	367/307/221	388/319/259	677/571/489	812/647/512	812/647/512
Sound pressure level(H/M/L)	F3B	dB（A）	36/33/29	36/33/29	37/34/30	37/34/30	41/35/31	44/39/33	44/39/33
	F4		36/33/29	36/33/29	37/34/30	37/34/30	41/35/31	44/39/33	44/39/33
	F5		36/33/29	36/33/29	37/34/30	37/34/30	41/35/31	44/39/33	44/39/33
Refrigerant	Type		R410A						
	Control method		EXV						
Net dimension (W×H×D)	F3B	mm	840×544×212	840×544×212	1,036×544×212	1,036×544×212	1,336×544×212	1,336×544×212	1,336×544×212
	F4		1,000×625×220	1,000×625×220	1,200×625×220	1,200×625×220	1,500×625×220	1,500×625×220	1,500×625×220
	F5		1,000×625×220	1,000×625×220	1,200×625×220	1,200×625×220	1,500×625×220	1,500×625×220	1,500×625×220
Packing dimension (W×H×D)	F3B	mm	939×639×305	939×639×305	1,139×639×305	1,139×639×305	1,439×639×305	1,439×639×305	1,439×639×305
	F4		1,089×683×312	1,089×683×312	1,289×683×312	1,289×683×312	1,589×683×312	1,589×683×312	1,589×683×312
	F5		1,182×683×312	1,182×683×312	1,382×683×312	1,382×683×312	1,682×683×312	1,682×683×312	1,682×683×312
Net/Gross weight	F3B	kg	26/29.5	26/29.5	29.5/34	29.5/34	36/40	36/40	36/40
	F4		30/35	30/35	37/43	37/43	44/50	44/50	44/50
	F5		30/38	30/38	37/46	37/46	44/53	44/53	44/53
Piping connections	L(flare)	mm	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ9.53	Φ9.53	Φ9.53
	G(flare)	mm	Φ12.7	Φ12.7	Φ12.7	Φ12.7	Φ15.9	Φ15.9	Φ15.9
	Drain piping	mm	ODΦ16	ODΦ16	ODΦ16	ODΦ16	ODΦ16	ODΦ16	ODΦ16
Standard Controller			Wireless remote controller(RM05/BG(T)E-A)						

Notes:

1. Nominal cooling capacities are based on the following conditions: return air temperature: 27°CDB, 19°CWB, and outdoor temperature:35°CDB, equivalent ref. piping: 8m (horizontal)
2. Nominal heating capacities are based on the following conditions: return air temperature: 20°CDB, outdoor temperature: 7°CDB, 6°CWB, and equivalent ref. Piping: 8m (horizontal)
3. Sound level is measured 1m from the air out-let in horizontal distance and 1m above the floor in vertical distance.

* Specifications are subject to change without prior notice for product improvement.

Console

- Auto Restart
- Cleanable Panel
- Auto Addressing
- Anti-Cold Air Function
- Follow Me
- LED Display

Compact size and stylish

- The elegant and thin unit body complements the existing decor and saves space.
- The EXV is installed inside of the indoor unit for added compactness.

Flexible installation

- Can be installed on the floor or lower wall
- As a floor standing type, it can be semi or fully accessed without losing capacity.

High Comfort

- Flexible air blow: vertical auto swing and wide angle louvers ensure that warm air reaches every corner of the room and increases the air flow coverage.
- Indoor unit adopts DC motor with five fan speeds to meet different requirements.
- Applies the Fujikoki mechanical expansion valve which offers 2,000-stage element positions to ensure precise flow control and lower modulation noise when the EXV is operating.

Powerful mode can be selected for rapid cooling or heating

COOLING MODE

Quick cooling

To maintain temperature

HEATING MODE

Anti-cold air

Normal operation

Two air outlets and four air inlets

Four directions of air inlet; two options of air outlet: Up and Down; or Up only.

Bottom, top, and right/left side, for better ventilation.

Low-noise design

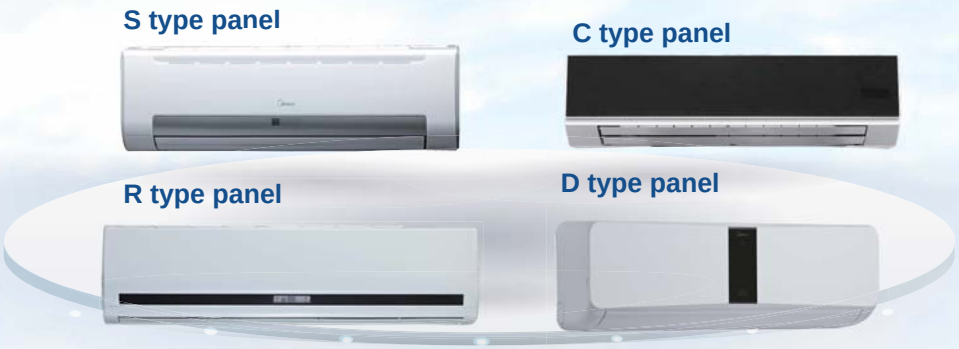
Five-speed indoor unit; low noise; low power consumption.

Low noise operation, lowest to 26dB(A)

50Hz Specifications

Model			MDV-D22Z/DN1-B	MDV-D28Z/DN1-B	MDV-D36Z/DN1-B	MDV-D45Z/DN1-B
Power supply			1-phase, 220-240V, 50Hz			
Cooling capacity		kW	2.2	2.8	3.6	4.5
		kcal/h	1,900	2,400	3,100	3,900
		Btu/h	7,500	9,600	12,300	15,400
Heating capacity		kW	2.6	3.2	4.0	5.0
		kcal/h	2,200	2,800	3,400	4,300
		Btu/h	8,900	10,900	13,600	17,100
Power input	Cooling	W	20	25	25	45
	Heating		20	25	25	45
Rated current	Cooling	A	0.09	0.11	0.15	0.2
	Heating		0.09	0.11	0.15	0.2
Airflow rate(H/M/L)		m^3/h	430/345/229	510/430/229	510/430/229	660/512/400
		CFM	253/203/135	300/253/135	300/253/135	388/300/235
Sound pressure level(H/M/L)		dB(A)	38/32/26	39/33/27	39/33/27	42/39/36
Refrigerant		Type	R410A			
		Control method	EXV			
Net dimension(W×H×D)		mm	700×210×600	700×210×600	700×210×600	700×210×600
Packing dimension(W×H×D)		mm	810×305×710	810×305×710	810×305×710	810×305×710
Net weight		kg	14	15	15	15
Gross weight		kg	19	20	20	20
Piping connections	L(flare)	mm	Φ6.35	Φ6.35	Φ6.35	Φ6.35
	G(flare)	mm	Φ12.7	Φ12.7	Φ12.7	Φ12.7
	Drain piping	-	OD Φ16	OD Φ16	OD Φ16	OD Φ16
Standard Controller			Wireless remote controller(RM05/BG(T)E-A)			

Wall-mounted



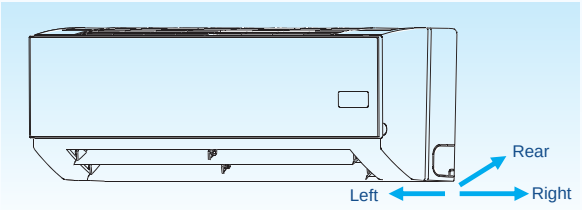
- Auto Restart
- Auto Addressing
- Cleanable Panel
- Anti-Cold Air Function
- Follow Me
- LED Display

Panel with LED display

The front panel and display panel have different colors to choose: white and brown for big panel, blue and brown for small panel.

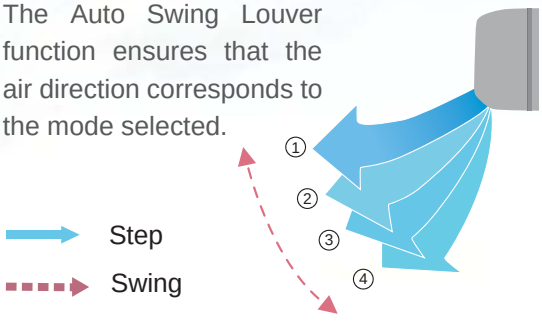
Convenient installation

- Multi-refrigerant outlet pipe method: left\right\rear, more flexible for installation.
- For S panel,R panel & C panel , the EXV is built-in the indoor unit , compact size , longer the connection pipe;gas pipe:468mm;liquid pipe:550mm,more flexible for installation. For D panel, the EXV can be 5m far away from the indoor unit, which lower the noise.
- Adopts new type fixing plate, is easy to install and stable.



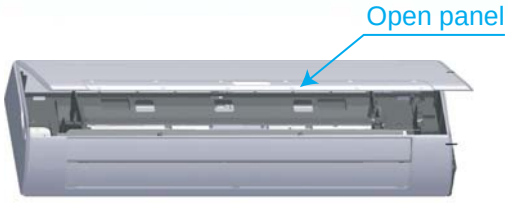
Auto swing louver

The Auto Swing Louver function ensures that the air direction corresponds to the mode selected.



Easy maintenance

The front panel can be removed for easy maintenance access.



Optimal comfort through better flow control and quiet operations

The mechanical expansion valve offers 2,000-stage element positions to ensure precise flow control and less modulation noise when the EXV is operating for a quiet and comfortable environment. Three air flow speeds: low, medium and high; double air guides. Smoother airflow and less turbulence is ensured by the multi-blade fan and the air guide design.

S type panel (50hz)

Model			MDV-D15G/N1-S	MDV-D22G/N1-S	MDV-D28G/N1-S	MDV-D36G/N1-S	MDV-D45G/N1-S	MDV-D56G/N1-S
Power supply			1-phase,220-240V,50Hz					
Cooling capacity		kW	1.5	2.2	2.8	3.6	4.5	5.6
		kcal/h	1290	1900	2400	3100	3900	4800
		Btu/h	5100	7500	9600	12300	15400	19100
Heating capacity		kW	1.7	2.4	3.2	4	5	6.3
		kcal/h	1470	2100	2800	3400	4300	5400
		Btu/h	5800	8200	10900	13600	17100	21500
Rated input	Cooling	W	28	28	28	28	45	45
	Heating		28	28	28	28	45	45
Rated current	Cooling	A	0.12	0.14	0.14	0.14	0.2	0.2
	Heating		0.12	0.14	0.14	0.14	0.2	0.2
Airflow rate (H/M/L)		m^3/h	427/389/336	525/480/430	525/480/430	590/520/480	860/755/630	925/860/755
		CFM	251/229/198	309/283/253	309/283/253	347/306/283	506/444/371	544/506/444
Sound pressure level(H/M/L)		dB(A)	33/31/28	35/32/29	35/32/29	35/32/29	40/38/34	40/38/34
Refrigerant		Type	R410A					
		Control method	EXV					
Indoor Unit	Net dim.(W×H×D)	mm	915×230×290	915×230×290	915×230×290	915×230×290	1072×230×315	1072×230×315
	Gross dim.(W×H×D)		1,020×315×390	1,020×315×390	1,020×315×390	1,020×315×390	1,180×315×415	1,180×315×415
	NetGross	kg	12.4/15.9	13/16.8	13/16.8	13/16.8	15.1/19.5	15.1/19.5
Piping connections	L(flare)	mm	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ9.53
	G(flare)	mm	Φ12.7	Φ12.7	Φ12.7	Φ12.7	Φ12.7	Φ15.9
	Drain piping	mm	ODΦ16.5	ODΦ16.5	ODΦ16.5	ODΦ16.5	ODΦ16.5	ODΦ16.5
Standard Controller			Wireless remote controller (RM05/BG(T)E-A)					

Model			MDV-D22G/DN1-S	MDV-D28G/DN1-S	MDV-D36G/DN1-S	MDV-D45G/DN1-S	MDV-D56G/DN1-S
Power supply			1-phase, 220-240V, 50Hz				
Cooling capacity		kW	2.2	2.8	3.6	4.5	5.6
		kcal/h	1,900	2,400	3,100	3,900	4,800
		Btu/h	7,500	9,600	12,300	15,400	19,100
Heating capacity		kW	2.4+0.75	3.2+0.75	4+0.75	5+0.9	6.3+0.9
		kcal/h	2,100+600	2,800+600	3,400+600	4,300+800	5,400+800
		Btu/h	8,200+2,600	10,900+2,600	13,600+2,600	17,100+3,100	21,500+3,100
Power input	Cooling	W	28	28	28	45	45
	Heating		28	28	28	45	45
Rated current	Cooling	A	0.14	0.14	0.14	0.2	0.2
	Heating		0.14+3.38	0.14+3.38	0.14+3.38	0.20+4.05	0.20+4.05
Airflow rate(H/M/L)		m^3/h	525/480/430	525/480/430	590/520/480	860/755/630	925/860/755
		CFM	309/283/253	309/283/253	347/306/283	506/444/371	544/506/444
Sound pressure level(H/M/L)		dB(A)	35/32/29	35/32/29	35/32/29	40/38/34	40/38/34
Refrigerant		Type	R410A				
		Control method	EXV				
Net dimension(W×H×D)		mm	915×230×290	915×230×290	915×230×290	1,072×230×315	1,072×230×315
Packing dimension(W×H×D)		mm	1,020×315×390	1,020×315×390	1,020×315×390	1,180×315×415	1,180×315×415
Net weight		kg	13.3	13.3	13.3	15.5	15.5
Gross weight		kg	17.1	17.1	17.1	19.9	19.9
Piping connections	L(flare)	mm	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ9.53
	G(flare)	mm	Φ12.7	Φ12.7	Φ12.7	Φ12.7	Φ15.9
	Drain piping	mm	ODΦ16.5	ODΦ16.5	ODΦ16.5	ODΦ16.5	ODΦ16.5
Standard Controller		-	Wireless remote controller(RM05/BG(T)E-A)				

Notes:

1. Nominal cooling capacities are based on the following conditions: return air temperature: 27°CDB, 19°CWB, and outdoor temperature:35°CDB, equivalent ref. piping: 8m (horizontal) 2. Nominal heating capacities are based on the following conditions: return air temperature: 20°CDB, outdoor temperature: 7°CDB, 6°CWB, and equivalent ref. Piping: 8m (horizontal)

3. Sound level is measured 1m below the air outlet horizontally and vertically.

* Specifications are subject to change without prior notice for product improvement.

C type panel (50hz)

Model			MDV-D22G/N1YB	MDV-D28G/N1YB	MDV-D36G/N1YB	MDV-D45G/N1YB	MDV-D56G/N1YB
Power supply			1-phase, 220-240V, 50Hz				
Cooling capacity		kW	2.2	2.8	3.6	4.5	5.6
		kcal/h	1,900	2,400	3,100	3,900	4,800
		Btu/h	7,500	9,600	12,300	15,400	19,100
Heating capacity		kW	2.4	3.2	4	5	6.3
		kcal/h	2,100	2,800	3,400	4,300	5,400
		Btu/h	8,200	10,900	13,600	17,000	21,500
Power input	Cooling	W	28	28	28	45	45
	Heating		28	28	28	45	45
Rated current	Cooling	A	0.14	0.14	0.14	0.2	0.2
	Heating		0.14	0.14	0.14	0.2	0.2
Airflow rate(H/M/L)		m^3/h	520/480/430	520/480/430	520/480/430	860/755/630	925/860/755
		CFM	306/283/253	306/283/253	306/283/253	506/444/371	544/506/444
Sound pressure level(H/M/L)		dB(A)	35/32/29	35/32/29	35/32/29	40/38/34	40/38/34
Refrigerant		Type	R410A				
		Control method	EXV				
Net dimension(W×H×D)		mm	915×210×290	915×210×290	915×210×290	1,070×210×315	1,070×210×315
Packing dimension(W×H×D)		mm	1,020×300×385	1,020×300×385	1,020×300×385	1,165×285×395	1,165×285×395
Net weight		kg	12	12	12	15	15
Gross weight		kg	16	17.5	17.5	19	18
Piping connections	L(flare)	mm	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ9.53
	G(flare)	mm	Φ12.7	Φ12.7	Φ12.7	Φ12.7	Φ15.9
	Drain piping	mm	ODΦ16.5	ODΦ16.5	ODΦ16.5	ODΦ16.5	ODΦ16.5
Standard Controller		-	Wireless remote controller(RM05/BG(T)E-A)				

Model			MDV-D22G/DN1YB	MDV-D28G/DN1YB	MDV-D36G/DN1YB	MDV-D45G/DN1YB	MDV-D56G/DN1YB
Power supply			1-phase, 220-240V, 50Hz				
Cooling capacity		kW	2.2	2.8	3.6	4.5	5.6
		kcal/h	1,900	2,400	3,100	3,900	4,800
		Btu/h	7,500	9,600	12,300	15,400	19,100
Heating capacity		kW	2.4+0.75	3.2+0.75	4+0.75	5+0.9	6.3+0.9
		kcal/h	2,100+600	2,800+600	3,400+600	4,300+800	5,400+800
		Btu/h	8,200+2,600	10,900+2,600	13,600+2,600	17,100+3,100	21,500+3,100
Power input	Cooling	W	28	28	28	45	45
	Heating		28	28	28	45	45
Rated current	Cooling	A	0.14	0.14	0.14	0.2	0.2
	Heating		0.14+3.38	0.14+3.38	0.14+3.38	0.2+4.05	0.2+4.25
Airflow rate(H/M/L)		m^3/h	520/480/430	520/480/430	520/480/430	860/755/630	925/860/755
		CFM	306/283/253	306/283/253	306/283/253	506/444/371	544/506/444
Sound pressure level(H/M/L)		dB(A)	35/32/29	35/32/29	35/32/29	40/38/34	40/38/34
Refrigerant		Type	R410A				
		Control method	EXV				
Net dimension(W×H×D)		mm	915×210×290	915×210×290	915×210×290	1,070×210×315	1,070×210×315
Packing dimension(W×H×D)		mm	1,020×300×385	1,020×300×385	1,020×300×385	1,165×285×395	1,165×285×395
Net weight		kg	12	12	12	15	15
Gross weight		kg	17.5	17.5	17.5	19	19
Piping connections	L(flare)	mm	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ9.53
	G(flare)	mm	Φ12.7	Φ12.7	Φ12.7	Φ12.7	Φ15.9
	Drain piping	mm	ODΦ16.5	ODΦ16.5	ODΦ16.5	ODΦ16.5	ODΦ16.5
Standard Controller		-	Wireless remote controller(RM05/BG(T)E-A)				

Notes:

1. Nominal cooling capacities are based on the following conditions: return air temperature: 27°CDB, 19°CWB, and outdoor temperature:35°CDB, equivalent ref. piping: 8m (horizontal) 2. Nominal heating capacities are based on the following conditions: return air temperature: 20°CDB, outdoor temperature: 7°CDB, 6°CWB, and equivalent ref. Piping: 8m (horizontal)

3. Sound level is measured 1m below the air outlet horizontally and vertically.

* Specifications are subject to change without prior notice for product improvement.

R type panel (50Hz)

Model			MDV-D71G-R3/N1Y	MDV-D80G-R3/N1Y	MDV-D90G-R3/N1Y
Power supply			1-phase, 220-240V, 50Hz		
Cooling capacity		kW	7.1	8	9
		kcal/h	6,100	6,900	7,700
		Btu/h	24,200	27,300	30,700
Heating capacity		kW	8	9	10
		kcal/h	6,900	7,700	8,600
		Btu/h	27,300	30,700	34,100
Power input	Cooling	W	75	86	86
	Heating		75	86	86
Rated current	Cooling	A	0.33	0.39	0.39
	Heating		0.33	0.39	0.39
Airflow rate(H/M/L)		m^3/h	1,190/880/680	1,320/840/640	1,320/840/640
		CFM	700/518/400	776/494/376	776/494/376
Sound pressure level(H/M/L)		dB(A)	47/43/42	48/43/38	49/43/38
Refrigerant		Type	R410A		
		Control method	EXV		
Net dimension(W×H×D)		mm	1,250×245×325	1,250×245×325	1,250×245×325
Packing dimension(W×H×D)		mm	1,345×335×430	1,345×335×430	1,345×335×430
Net weight		kg	19.9	19.9	19.9
Gross weight		kg	25	25	25
Piping connections	L(flare)	mm	Φ9.53	Φ9.53	Φ9.53
	G(flare)	mm	Φ15.9	Φ15.9	Φ15.9
	Drain piping	mm	OD Φ16.5	OD Φ16.5	OD Φ16.5
Standard Controller		-	Wireless remote controller(RM05/BG(T)E-A)		

D type panel

Model			MDV-D22G /N1Y-11D5	MDV-D28G /N1Y-11D5	MDV-D36G /N1Y-11D5	MDV-D45G /N1Y-11D5	MDV-D56G /N1Y-11D5	MDV-D71G /N1Y-11D5
Power supply			1-phase,220-240V,50Hz					
Cooling capacity		kW	2.2	2.8	3.6	4.5	5.6	7.1
		kcal/h	1900	2400	3100	3900	4800	6100
		Btu/h	7500	9600	12300	15400	19100	24200
Heating capacity		kW	2.4	3.2	4	5	6.3	8
		kcal/h	2100	2800	3400	4300	5400	6900
		Btu/h	8200	10900	13600	17100	21500	27300
Rated input	Cooling	W	25	29.9	38.7	42.1	61.7	79
	Heating		25	29.9	38.7	42.1	0.3	0.35
Rated current	Cooling	A	0.13	0.15	0.18	0.21	61.7	79
	Heating		0.13	0.15	0.18	0.21	0.3	0.35
Airflow rate (H/M/L)		m^3/h	367/295/263	491/403/341	576/419/360	724/511/436	1,056/883/741	1,182/842/702
		CFM	216/174/155	289/237/201	339/247/212	426/301/257	622/520/436	696/496/413
Sound pressure level(H/M/L)		dB(A)	33/31/28	33/31/28	33/31/28	38/36/32	38/36/32	43/41/38
Refrigerant		Type	R410A					
		Control method	EXV					
Indoor Unit	Net dim.(W×H×D)	mm	680×180×255	770×190×255	770×190×255	905×205×275	1,030×220×315	1,030×220×315
	Gross dim.(W×H×D)		885×310×395	975×310×395	975×310×395	1,110×310×395	1,240×310×415	1,240×310×415
	NetGross	kg	6.5/11.9	7.4/12.8	7.4/12.8	9.1/14.7	12.9/19.2	12.9/19.2
Piping connections	L(flare)	mm	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ9.53	Φ9.53
	G(flare)	mm	Φ12.7	Φ12.7	Φ12.7	Φ12.7	Φ15.9	Φ15.9
	Drain piping	mm	ODΦ16	ODΦ16	ODΦ16	ODΦ16	ODΦ16	ODΦ16
Standard Controller			Wireless remote controller (RM05/BG(T)E-A)					

Notes:

1. Nominal cooling capacities are based on the following conditions: return air temperature: 27°CDB, 19°CWB, and outdoor temperature:35°CDB, equivalent ref. piping: 8m (horizontal) 2. Nominal heating capacities are based on the following conditions: return air temperature: 20°CDB, outdoor temperature: 7°CDB, 6°CWB, and equivalent ref. Piping: 8m (horizontal) 3. Sound level is measured 1m below the air outlet horizontally and vertically. * Specifications are subject to change without prior notice for product improvement.

Control Systems

Comparison of Controllers

Item		Remote controller			Wired Controller				Centralized Controller		
Model name		RM05/ RM02	R51/ R71	R05/ R06	KJR-10B /KJR-12B	KJR-120A	KJR-90A /KJR-86C	KJR-29B KJR-90C	CCM30/MD-CCM03	MD-CCM09	KJR-90B
MAX. controllable IDU		/			1	1	1	1	64	64	16
A/C control function	On/Off	●	●	●	●	●	●	●	●	●	●
	Operation mode setting	●	●	●	●	●	●	●	●	●	●
	Fan speed setting	●	●	●	●	●	●	●	●	●	-
	Room temp. setting	●	●	●	●	●	●	●	●	●	-
	Vertical swing	●	●/-	●/-	-	-	-	-	-	-	-
	Horizontal swing	●	●	●	●	●	●/-	●	●	●	-
	Air direction	●/-	-/●	●	-	-	-	-	-	-	-
	Economic mode	●	●	●/-	●	●	-	-	-	-	-
	Central setting	-	-	-	-	-	-	-	●	●	●
	Keyboard lock	●	●/-	●	●	●	-	●	●	●	-
	Mode lock	-	-	-	-	-	-	-	●	●	-
	Remote signal receiving	-	-	-	-	-	-	●	-	-	-
	26℃ shortcut setting	-/●	-	-	-	-	-/●	-	-	-	-
	Silent mode	-	-	-	-	-	-	●	-	-	-
Display	Backlight	●	●/-	●	●/-	●	-/●	●	●	●	●
	Current time	●/-	-	●	●/-	●	●/-	-	-	●	-
	RC prohibition	-	-	-	-	-	-	-	●	●	-
	Address	-	-	-	-	-	-	-	●	●	-
	Error code	-	-	-	-	●	-	-	●	●	-
	Room temp.	-	-	-	-	-	-/●	-	-	-	-
Timer	Period	-	-	-	-	-	-	-	-	Week	-
	On/Off per day	-	-	-	-	-	-	-	-	4	-
	On/Off per week	-	-	-	-	-	-	-	-	28	-
	On/Off timer	●	●	●	●	●	●/-	●	●	●	-
Control	FOLLOW ME	-/●	-	-	-/●	-	-	●	-	-	-
	Emergent stop	-	-	-	-	-	-	-	●	-	-
	Emergent start	-	-	-	-	-	-	-	●	-	-
	Address setting	●	-	-	-	-	-	●	-	-	-
	BMS access	-	-	-	-	-	-	-	●	-	-
	Control via internet	-	-	-	-	-	-	-	●	-	-
	Air filter cleaning reminding	-	-	-	●/-	●	-	●	●/-	-	-

● : Available controller functions

— : Not available controller functions

Control Systems

Network Control

Data converter
CCM15

iPad

Laptop

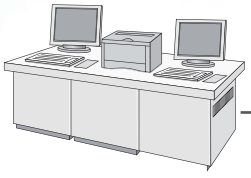
Connectable to various sized Gateway

IMM Software

M-INTERFACE Gateway

Lonworks BMS

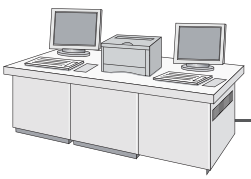
MD-LonGW64



BACnet BMS

MD-CCM08

Web monitoring system



Modbus BMS

Modbus gateway

Centralized Control

Indoor Centralized Controller (Touch key)

X,Y,E

CCM30

Indoor Centralized Controller

X,Y,E

MD-CCM03

Outdoor Centralized Monitor

F1,F2,E

K1,K2,E

MD-CCM02

Note: The wires in the diagram show the signal flows only, while not represent the actual connecting ways.

Individual control

Wired controller

KJR-10B KJR-86C
KJR-12B KJR-120A
KJR-90A KJR-90C
KJR-29B

Remote controller

RM02
RM05
R05
R06
R51
R71

Accessories

Card-key Interface MD-NIM05

MD-NIM05

Card-key

Wired controller

Infrared Sensor MD-NIM09

Infrared control box

Infrared sensor module

Wired controller

Outdoor units

Wireless Remote Controller

RM02

RM05

R05

R06

R51

R71

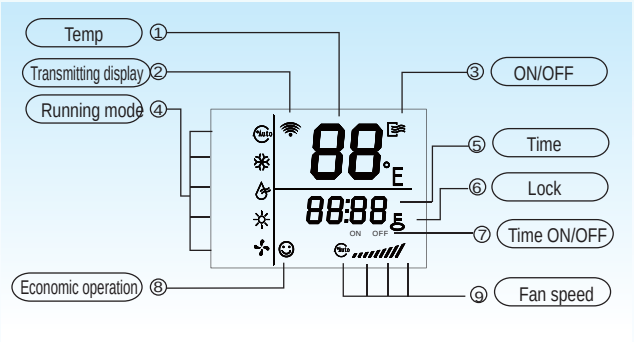
Functions

Portable device

The wireless remote controller is a portable control device that enables users to control the A/C anywhere within a distance of 11m.

Simplified user interface

Users can synchronize the air conditioners' parameters with the display panel on the wireless remote controller to precisely control a room's environment.

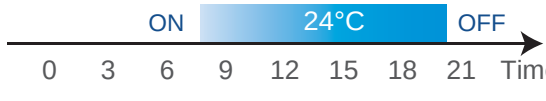


Background light

The background light allows users to operate the device in a dark room. The device lights up when a button is pressed, and turns off when a given operation is completed.

Built-in timer

The built-in daily timer offers the convenience of automatically starting and stopping the system at set times.



The indoor unit is set to work in automode from 8:00 to 20:00

Setting addresses

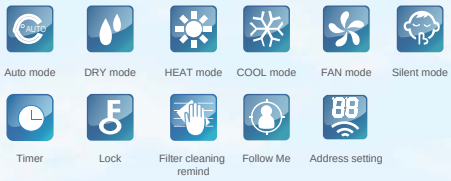
Besides the machine' s auto addressing function, users can set the indoor unit' s address on the wireless remote controller RM05/RM02.

Model	RM02	RM05	R05	R06	R51	R71
Dimensions (H×W×D)(mm)	150×60×15	150×65×20	150×65×20	100×55×20	140×60×15	125×42×27
Power (V)	1.5V(LR03/AAA)×2					

Wired Controller

KJR-29B

KJR-90C



Functions

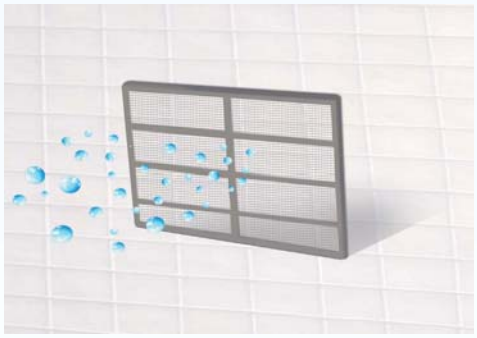
Air filter cleaning reminding

The wired controller records the total running time of the indoor unit. When the accumulated running time reaches the pre-set value, it will remind users need to clean the air filter of the indoor unit.

Clean the filter regularly can keep indoor air fresh and clean, good for your health.

Silent mode

Under the cooling, heating and auto mode,when operate the silent mode, it can reduce the running noise through setting the fan speed to low. This will help you bring a quieter environment.



*Available for KJR-10B/KJR-29B/KJR-90C model.

KJR-29B
(Touch key)

Remote signal receiving function

KJR-29B and KJR-90C provide a signal receiver for remote controller. Signal from remote controller can be received by a wired controller, then sent to the indoor unit and it conveniences to control.

Locking wired controller

The locking function can be used to prevent other people from using the controller.

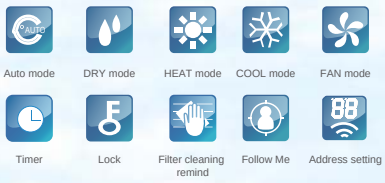
Specifications

Model	29B	90C
Dimensions (H×W×D)(mm)	120×120×20	86×86×16.5
Power (V)	DC 5V	

Wired Controller

KJR-10B

KJR-12B



Functions

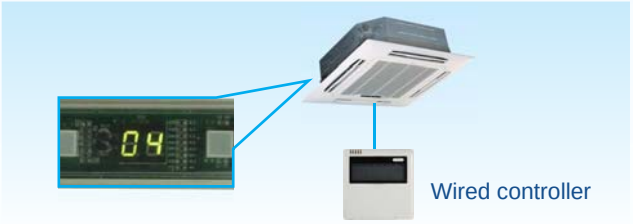
Follow me

With the FOLLOW ME function, the wired controller can detect the air temperature at the user' s altitude instead that of the ceiling or floor. This helps making the room environment comfortable and the temperature accurate.

*The follow me function is available for KJR-12B/KJR-29B model.

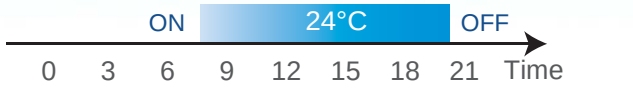
Setting addresses

With the address setting function,and easy for the installation and future service. The service person can set the address for indoor unit by KJR-10B, KJR-29B and KJR-90C.



Built-in timer

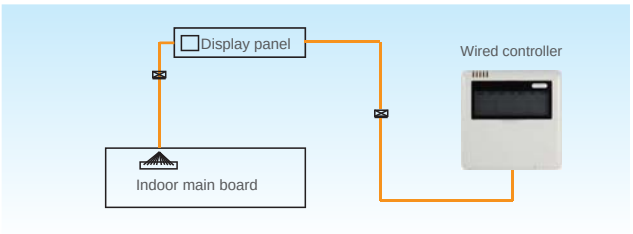
Built-in daily timer offers the convenience of automatically starting and stopping the system at set times.



The indoor unit is set to work in automode from 8:00 to 20:00

Easy connection

The wired controller conveniently connects to the indoor unit' s display panel via connecting wire.



Specifications

Model	10B	12B
Dimensions (H×W×D)(mm)	120×120×15	120×120×15
Power (V)	DC 5V	

Wired Controller

KJR-90A

KJR-86C

KJR-120A

Functions

Features

- Small and easy to install
- Suitable for all types of indoor units
- Can be stored in a mounting cabinet

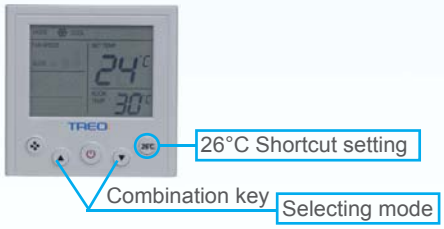
KJR-90A

Built-in timer

Built-in daily timer offers the convenience of automatically starting and stopping the system at set times.

Mode setting

Mode-button hidden controller: Press the temperature buttons "▲" and "▼" simultaneously for 3 seconds to select the operation mode: COOL and HEAT. The design is suitable for hotels, hospitals, schools and other similar types of buildings.



KJR-86C

Auto mode

For V4 plus R series used only. Under the auto mode of V4 plus R system, it can automatically switch to COOL or HEAT mode according to the temperature difference value between Tf(indoor temperature) and Ts(setting temperature)

KJR-120A

Specifications

Model	90A	86C	120A
Dimensions (H×W×D)(mm)	90×86×13	86×86×18	120×120×20
Power (V)	DC 5V		

Wired Controller

HRV Wired Controller

KJR-27B

Functions

HRV controller

KJR-27B is individually designed for HRV—Heat Recovery Ventilator. The HRV can work in the following modes: exhaust, air supply, bypass, heat exchange, and auto.

AUTO->HEAT EXCHANGE->
EXHAUST->BYPASS->AIR SUPPLY

Built-in timer

Built-in daily timer offers the convenience of automatically starting and stopping the HRV at the set times.

Setup screen example
Set to wednesday: 8:00 to 20:00

Specifications

Model	KJR-27B
Dimensions(H×W×D)(mm)	120×120×15
Power (V)	198-242V(50/60Hz)

Weekly Schedule Controller

MD-CCM04

Functions

Simple disign

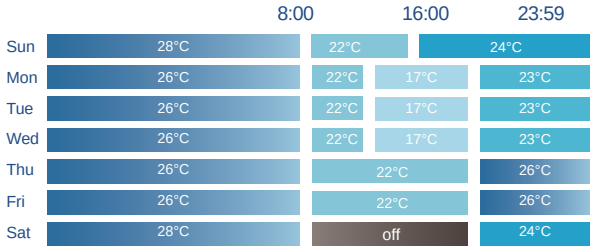
MD-CCM04 can be used as a weekly schedule wired controller or general wired controller. It can query the indoor temperature and the setting parameters of the weekly schedule. It can display the error codes and running state of the indoor unit. With the LCD backlight, and allows users to operation the device in a dark room.

Delay function

The function is specially designed for a person who is working overtime. During the weekly schedule running, press delay button it will delay 1hour or 2 hours to turn off the air conditioner.

Weekly schedule

Users can set up to 4 periods per day, and select the desired running mode and room temperature.



Specifications

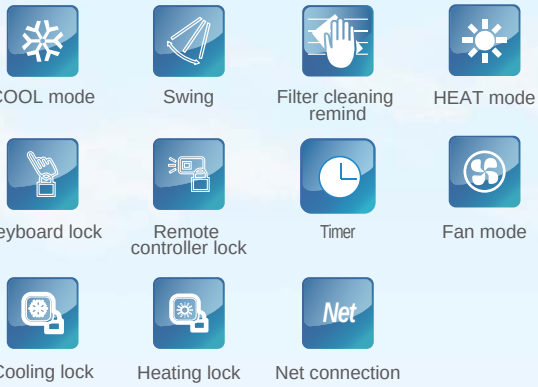
Model	MD-CCM04
Dimensions (H*W*D)(mm)	120×120×15
Power (V)	DC 5V

Centralized Controller

Indoor Centralized Controller

MD-CCM03

CCM30

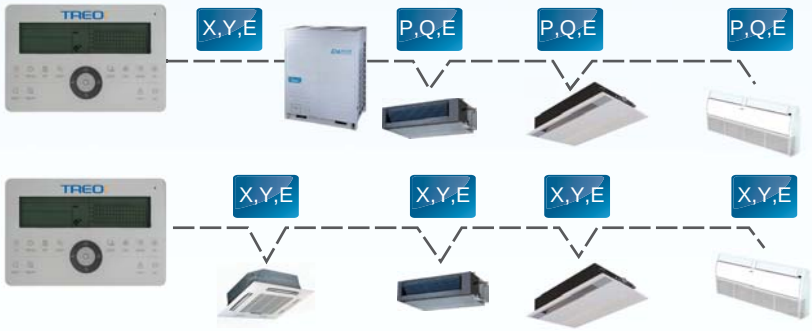


Functions

Centralized control

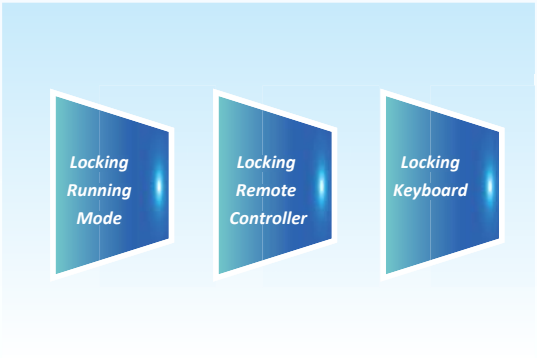
The centralized controller is a multifunctional device that can control up to 64 indoor units within a maximum connection length of 1,200m.

The device connects to the master outdoor units of Midea's newly designed products to simplify and centralize the wiring configuration. The two connection modes are as follows:



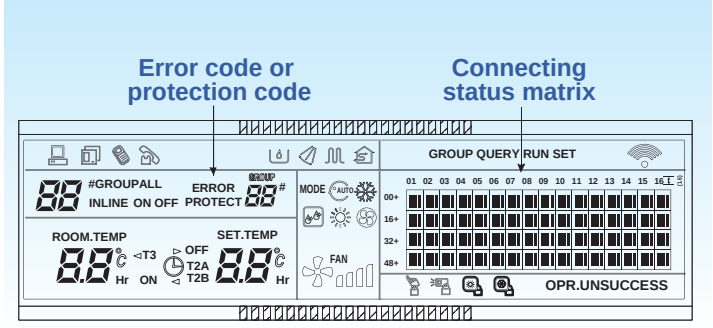
Three lock modes

Centralized controller provides a superior way to manage the indoor units. Users are able to make their own choice from locking the wireless controller, locking the running mode or lock the centralized controller's keyboard as they wish.



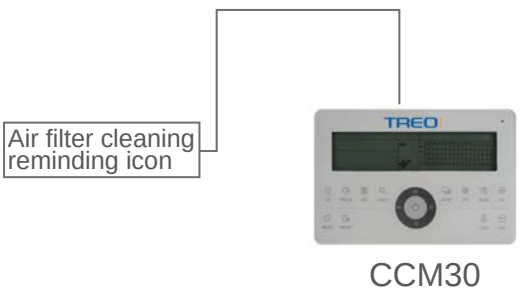
Indoor unit working status display

The centralized controller displays indoor units' working status and error codes so users can easily identify faults via checking the error codes table in the user's manual before contacting a service engineer.



Air filter cleaning reminding function

The air filter cleaning reminder function is only available on the touch-key central controller CCM30. The "FL" icon indicates that the air filter in a given indoor unit needs cleaning.



CCM30

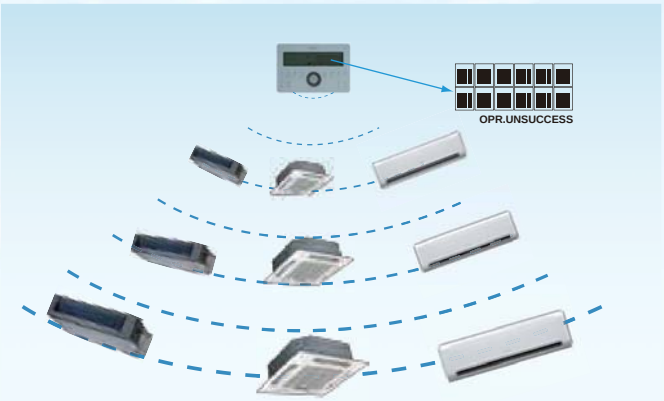
Functions

Stylish design

CCM's stylish design suits high-end environments. The keyboard lock function is used to prevent operational mistakes.

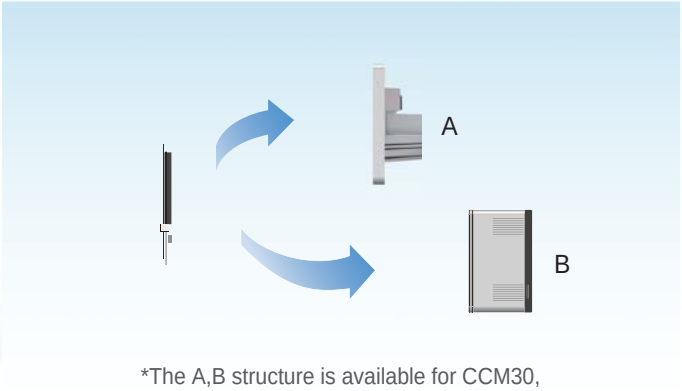
Single/unified control

The control object can be either a single unit or all units, which vastly simplifies the control process. Operation signal feedback ensures that all units are working in the correct mode.

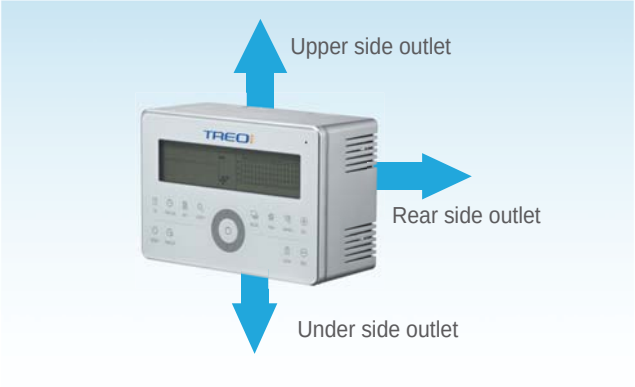


Easy installation

Centralized controller offers two different appearances to mostly suit the installation. The A structure must be embedded into the wall and the B structure doesn’ t need. Both of them are easy to operate.



*The A,B structure is available for CCM30, and MD-CCM03 only has B structure



B structure leading-out mode sketch

Access to network monitoring

The centralized controller is able to bridge up to 64 indoor units on the network monitoring and building management systems.

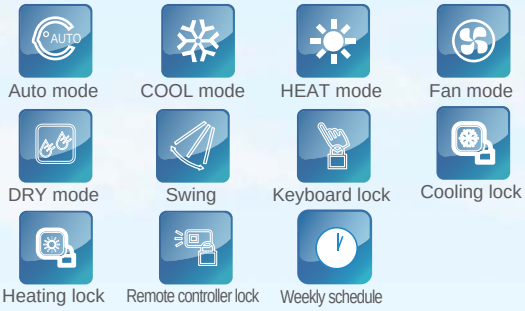
Specifications

Model	MD-CCM03	CCM30
Dimensions (H*W*D)(mm)	179×119×74	180×122×78 and 180×122×68
Power (V)	198-242V(50/60Hz)	

Centralized Controller

Weekly Schedule Centralized Controller

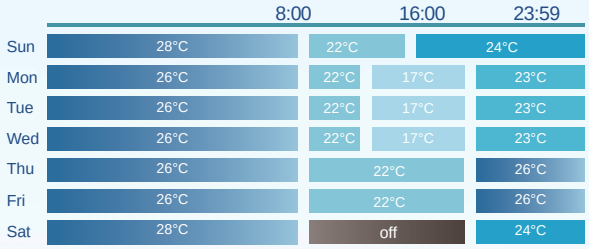
MD-CCM09



Functions

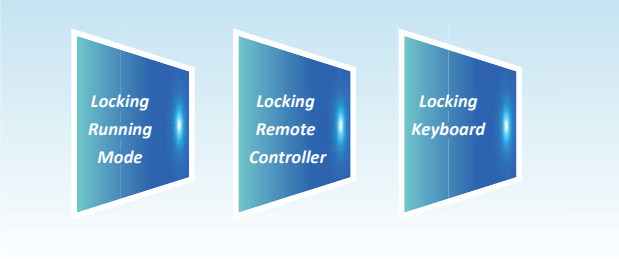
Weekly schedule

MD-CCM09 can include up to 64 indoor units in the weekly schedule. Users can set up to 4 periods per day, and select the desired running mode and room temperature. The operating object can be a single indoor unit or all the indoor units.



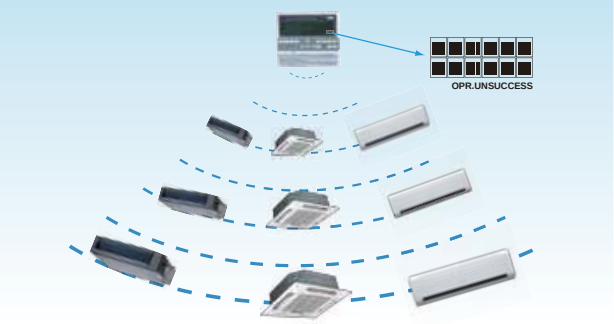
Three lock modes

Centralized controller MD-CCM09 provides a superior way to manage the indoor units. Users are able to make their own choice from locking the wireless controller, locking the running mode or lock the MD-CCM09' s keyboard as they wish.



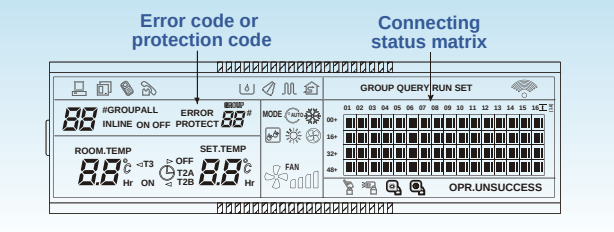
Single/unified control mode

The control object can be either a single unit or all units, which vastly simplifies the control process. Operation signal feedback ensures that all units are working in the correct mode.



Indoor unit working status display

MD-CCM09 displays indoor units' working status and error codes so users can easily identify faults via checking the error codes table in the user's manual before contacting a service engineer.



Specifications

Model	MD-CCM09
Dimensions (H*W*D)(mm)	179×119×74
Power (V)	198-242V(50/60Hz)

Centralized Controller

Unified On/Off Controller

KJR-90B

Unified controller design with graceful appearance and explicit panel.

Functions

Unified control

KJR-90B offers on/off and heating/cooling functionality for indoor units based on preset temperatures to ensure easy management.

Centralized control

KJR-90B can be used to centrally control up to 16 indoor units.

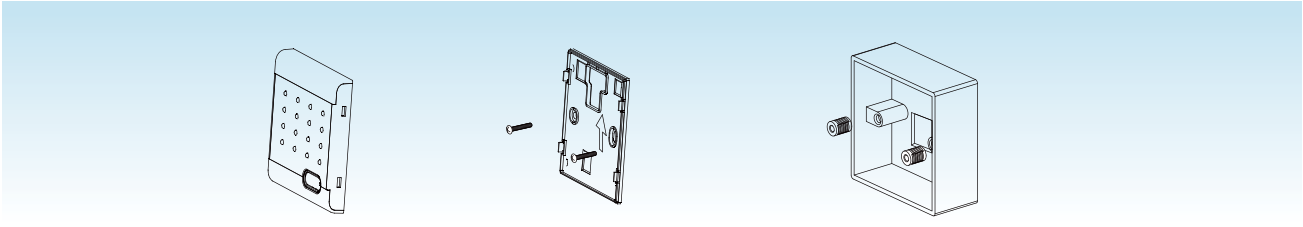
Light indicator

The LEDs on KJR-90B indicate the indoor units' running status for easy fault detection. The lights switch off automatically to save energy once a given operation is complete. The indicators are as follows:

Light	Blue	Red	Flash
Single On/Off key	Cooling/Fan	Heating	IDU Error
Unified On/Off key			EEPROM Error

Easy installation

KJR-90B can be easily mounted on the built-in cabinet:



Specifications

Model	KJR-90B
Dimensions (H*W*D)(mm)	90×86×8
Power (V)	DC 5V

Centralized Monitor

Outdoor Centralized Monitor

MD-CCM02

Query parameters

4-way/EXV valve

Protection/ Error codes

Power consumption

With the ODU communication

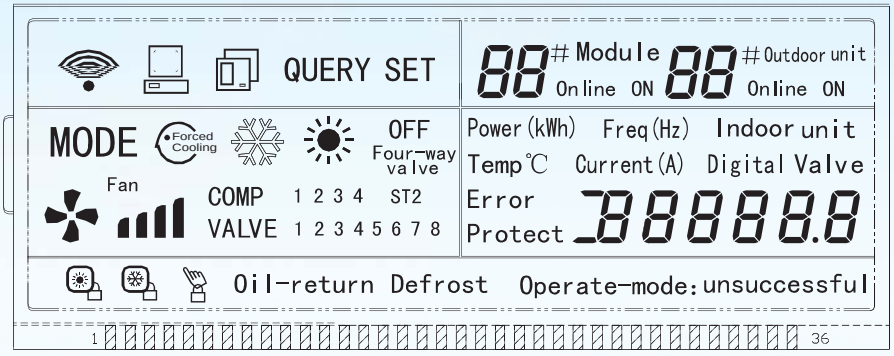
With the PC communication

Forced Cooling

Functions

ODU parameters display

MD-CCM02 enables users to easily check outdoor units' running status, including frequency, temperature, current, pressure, protection codes and error codes.



Graph 2 LCD Screen

Access to network monitoring

MD-CCM02 can connect up to 8 refrigerant systems and 32 outdoor units to the network system.

■ Specifications

Model	MD-CCM02
Dimensions(H×W×D)(mm)	120×120×15
Power (V)	198-242V(50/60Hz)

Central Control Software

Central Control Software

IMM - Intelligent Manager Software

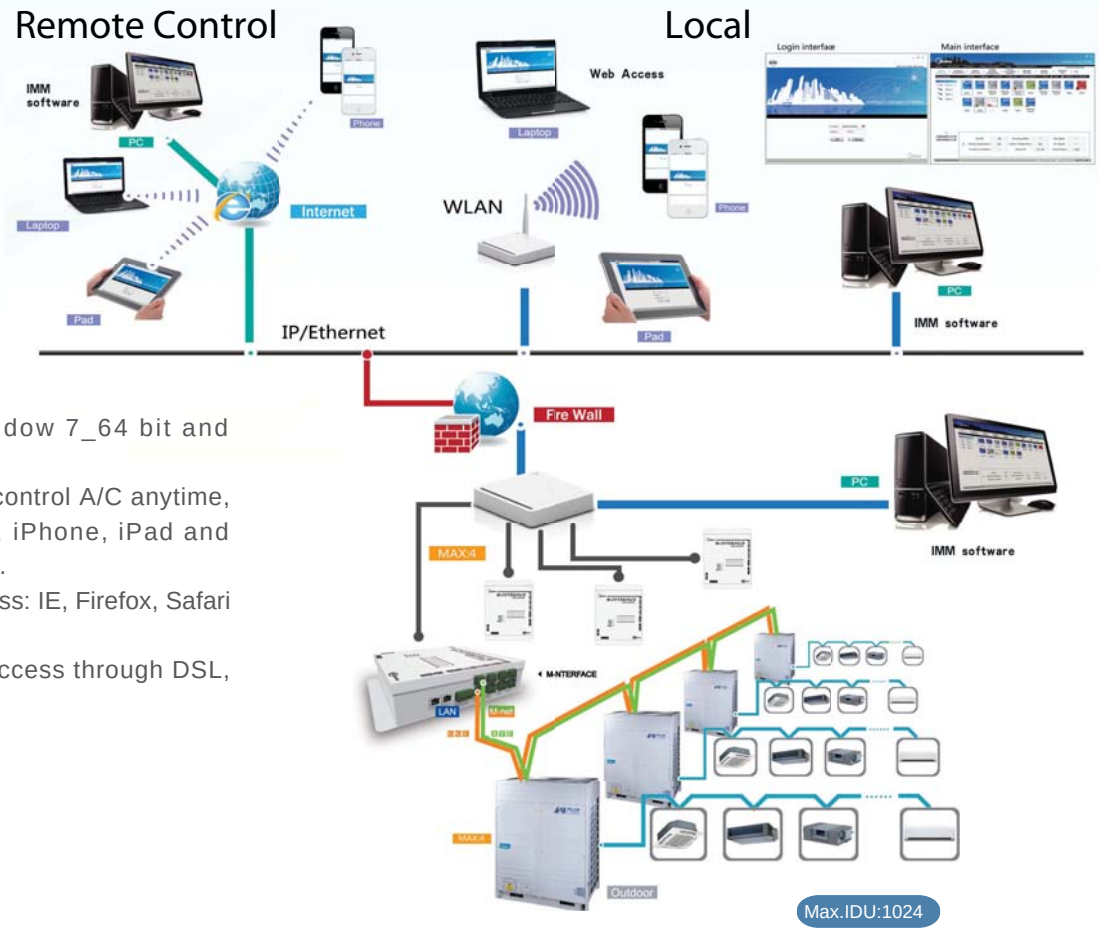
4th Generation Network Control System

Functions

Intelligent Manager of TREO, designed specifically to control VRF systems, is based on a centralized format and dedicated to the complete control and monitoring of all the system's functions. It can be used as a flexible multi-purpose system and applied to a variety of needs, according to the scale, purpose and control method of each building.

- Up to 4 M-interfaces, 64 refrigerant systems, 1,024 indoor units, and 256 outdoor units can be controlled by one PC.
- Web Access
- User friendly operation
- Central building monitoring and control
- Energy saving management
- SMS modem (optional)
- Electricity charge distribution
- Annual schedule control
- Low-load operation indicate
- Generate operational history reports (daily, weekly, monthly)
- Fault display & Warning message
- Filter replacement reminder
- Emergency stop and Alarm signal output

Network Control Application



- Can run on ,Window 7_64 bit and Window XP_32 bit.
- Can monitor and control A/C anytime, anywhere by PC, iPhone, iPad and notebook computer.
- Support WEB access: IE, Firefox, Safari and Chrome.
- Enables remote access through DSL, VPNs and so on.

Various Managements

Simple Operation and Management

Click & Operate, a user-friendly interface allows even non-experts to perform the building management system easily.

Data Management

Operational information of individual indoor units are monitored, allowing for distribution of power consumption at outdoor units.
Stores operation data on multiple systems and displays it in graphical format for visual management.
Uses IMM software to generate tenant reports and help building owners bill for energy use.

Electricity Charge Distribution(Patented)

Provides information on proportional electrical power distribution to optimize electricity consumption management.
Uses software to calculate electric power proportional distribution, output and save electricity consumption data for each indoor unit (or group) which is connected to the intelligent manager.
Applies the patented Calculation Method to calculate consumption rates according to capacity demand which is based on var ious parameters: setting temperature, room temperature, running mode, rated HP, public areas, unused rooms, and nighttime use; outputs this information on a charge calculation sheet to evenly divide power consumption charges among tenants.

Hightlights

Web Access function

With the web access function, a PC, laptop computer or a smart phone can be used as a remote controller.

Visual Navigation

Clicking the jump button will display a list of all available screens. Clicking the back button will return to the previous screen.

Energy Saving Management

Based on a predetermined schedule, the Intelligent Manager executes capacity control and intermittent operations on all air conditioning units to maintain a high comfort index.

Data Backup

The M-interface will automatically back up data on the installed SD card (2GB) in case system failure occurs, such as: power failure or system dam. IMM software also stores the previous 3 months' operational data on the HDD.

Schedule Control

Automatically performs facility start/stop control, switches the operating mode, sets temperatures and enables/disables the remote control according to the present time schedule. 4 sections and 20 actions per day for each single unit or group.

Multiple Languages

Provides seven language settings:

English	French	Italian
Russian	German	Spanish
Simple Chinese		

Warning Message

The system can receive error messages from air conditioning units in more than one buildings or structures via public phone lines.
*Requires the Midea "SMS Modem" to send automatic warning messages to designated phone numbers.

Electricity Charge Distribution

Electricity charges can be easily divided when billing users for air conditioning power charges; for example, for tenants in a commercial building, offices in a rented building, or rooms in a hotel.

Accessories

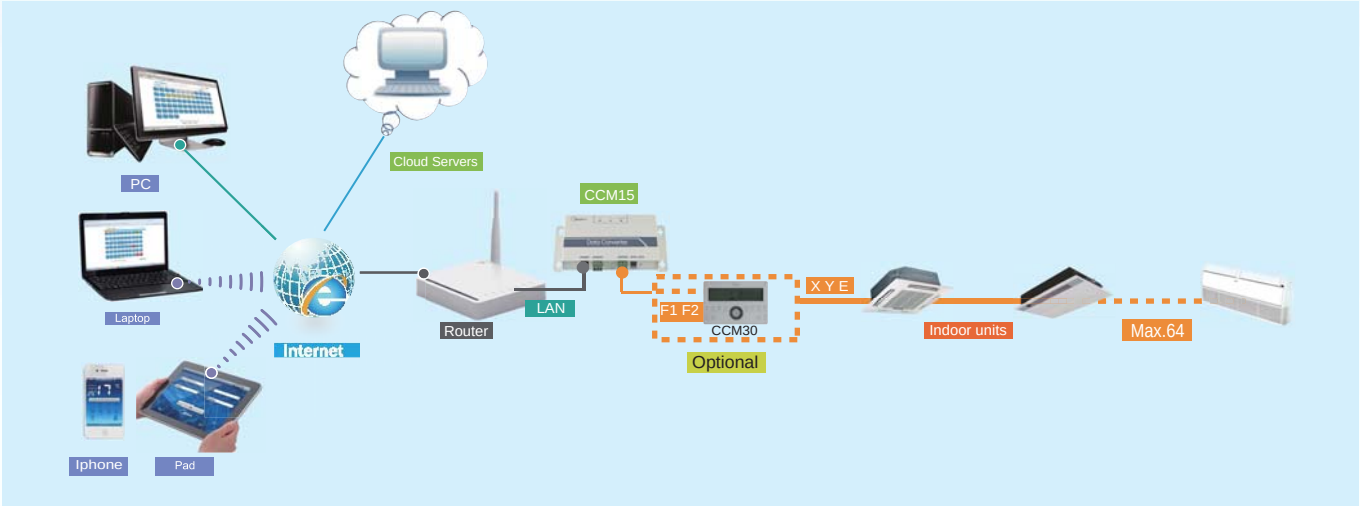
Data converter

CCM15

- Can realize data conversion between TCP/IP protocol and 485 protocol.
- WEB function realizes VRF system's webpage access.
- User can monitor and query the air conditioners through LAN and WAN.
- Providing the TCP / IP port for VRF system of Midea to achieve WEB/HTTP/TCP/IP access.
- Can remotely control the A/C systems through computer, iPhone, iPad or other intelligent terminals.

Network example

- Can be directly connected with XYE port of the indoor units.
- Up to connect 64 indoor units.
- CCM03/CCM30 is optional and can be connected with CCM15 through F1, F2 and E ports.
- The system consisting A/C system, data converter CCM15, router, cloud server and control terminal.



Simply control interface

- Software control/ Cloud server control (WEB access).
- Click & operate, a user-friendly interface.
- Allows signal and group control.
- Simplified user control interface.
- Colour indication and icon makes it easy to recognize unit state.
- Can full screen display and the temperature can be adjusted by fingers' sliding.

Weekly schedule control

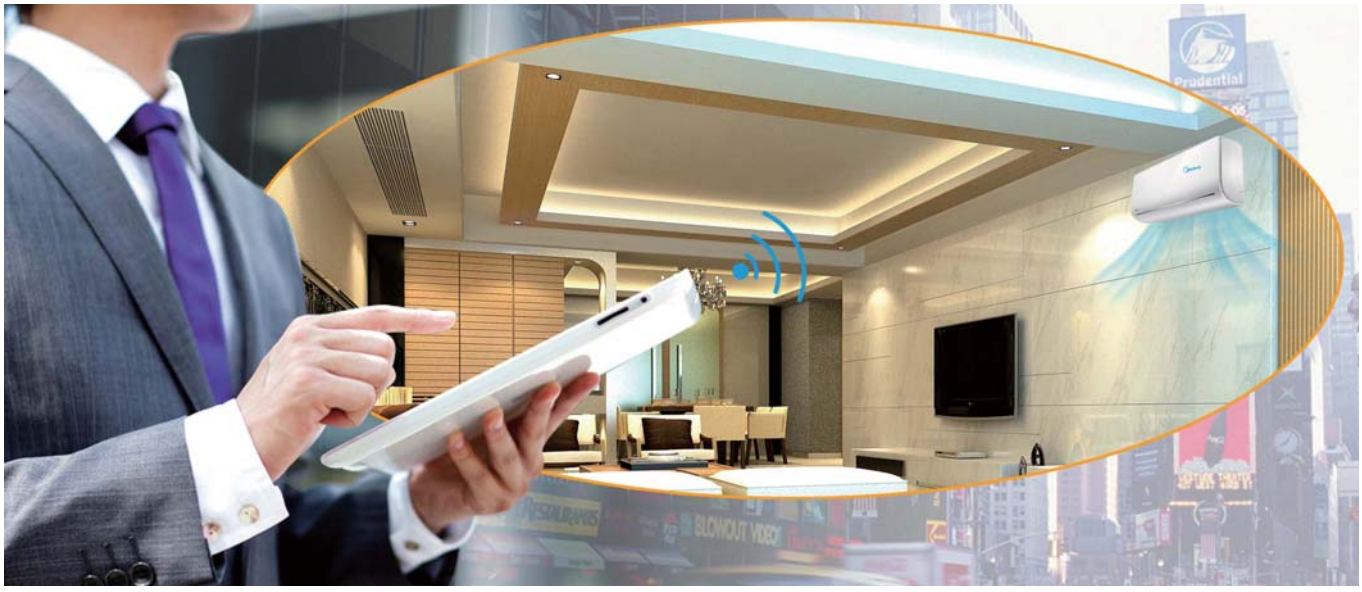
- With weekly schedule function for iPad.
- Multiple sections in each day for single unit or group.
- Automatically performs facility start/stop control, operating mode, setting temperatures and according to the present time schedule.

Web features

- Query and control single unit or group.
- Weekly schedule setting: can set multiple sections in each day for single unit or group.
- Group user control : a user can use the same ID to manage hundreds of CCM15, when selecting the "As group user" button on the login page.
- History error: easy service and management with history error function.

Intelligent control

- The air conditioner remote control can be realized by mobile phone or tablet computer.
- You can query the running state of the air conditioner any time and any where and even make an appointment in advance.
- Can remotely turn off the air conditioner to avoid the power waste, when you are in a hurry to leave.



Accessories

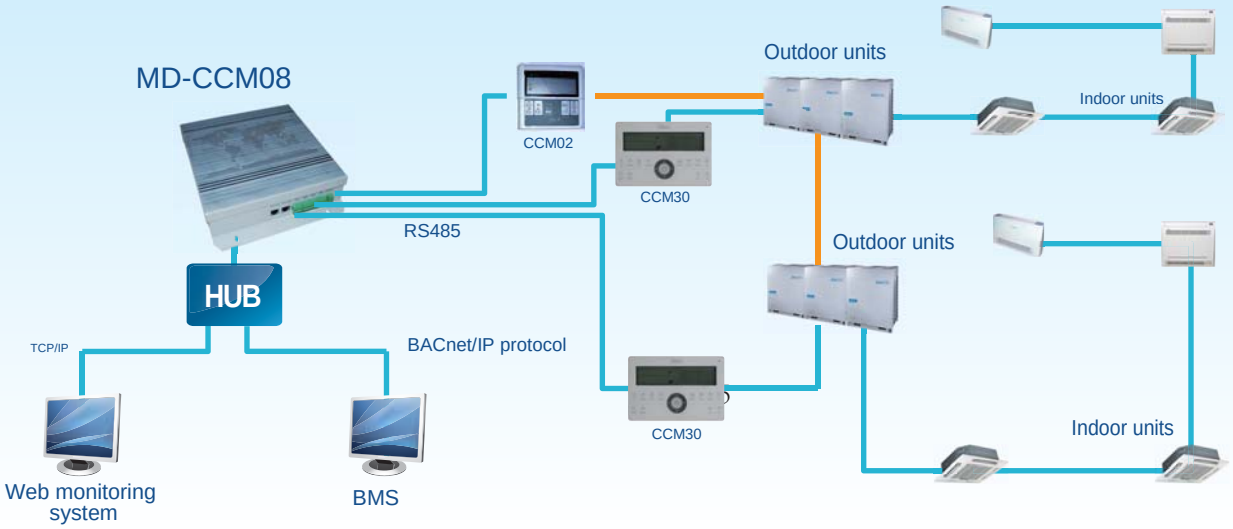
BACnet® BMS Gateway

MD-CCM08

Contains 4 groups of RS485 communication ports and be able to connect up to 256 indoor units or 128 outdoor units to the BMS. Be free to connect to the BMS or not.

Network example

One MD-CCM08 gateway can connect MAX.4 CCM02 or CCM03,and each 485 port only can connect one CCM02 or one CCM03/CCM30.



Monitoring units online

MD-CCM08 allows users to track units' operational status and change their running parameters on Internet Explorer for maximum control convenience

Wide compatibility

CCM08 has a wonderful adaptability to the BMS

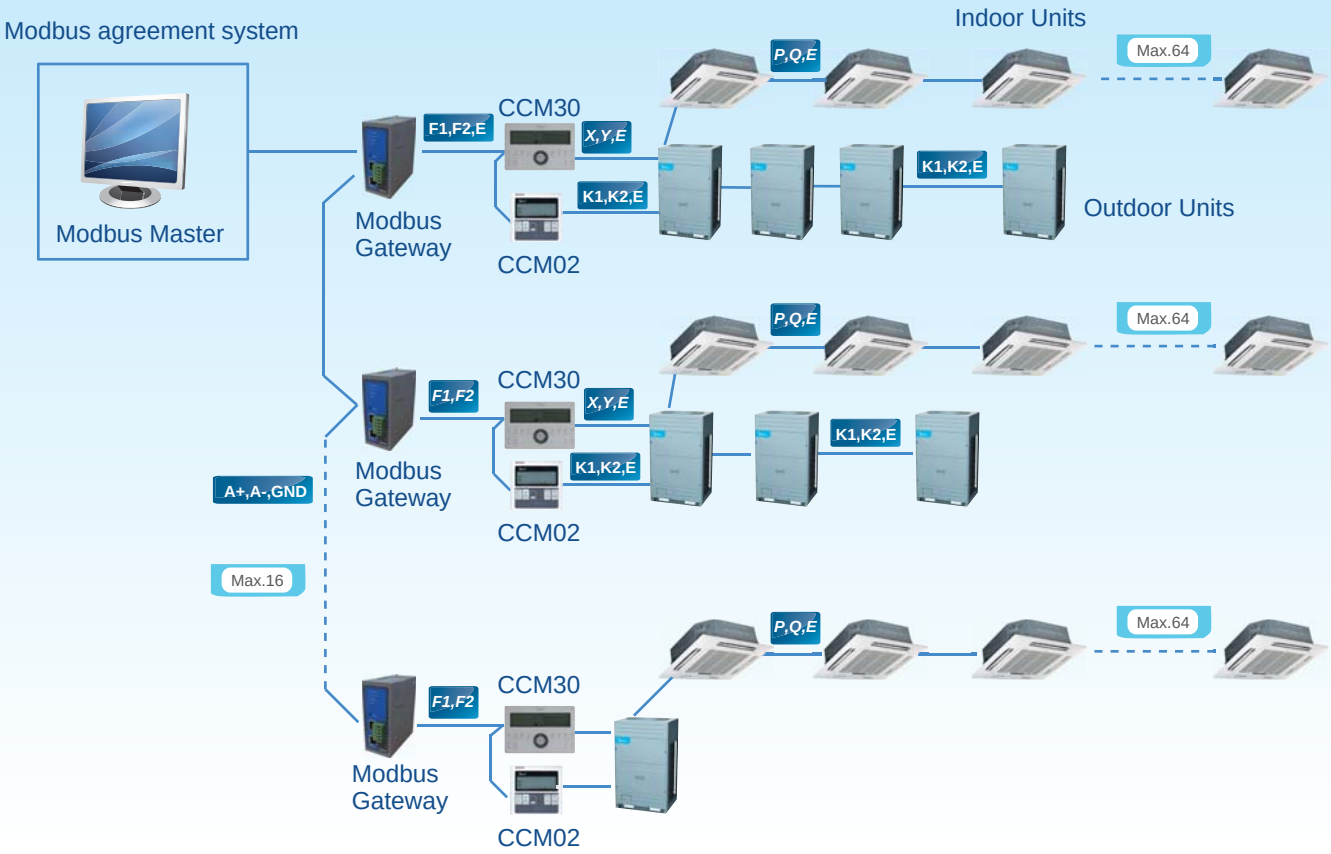
	Company	BMS software	Brand
1	SIMENS	APOGEE	APOGEE
2	TRANE	Tracer Summit	TRACER SUMMIT
3	Honeywell	Alerton	ALERTON
4	Schneider	Andover	AndoverControls
5	Johnson	METASYS	METASYS

Accessories

Modbus BMS Gateway

Supports Modbus protocol networks
Bridges the Midea central A/C system and the BMS
Establishes a Modbus network comprising up to 1,024 indoor units and 64 outdoor units
Transfers data in RTU mode
Provides a wide voltage range: 12-48V DC

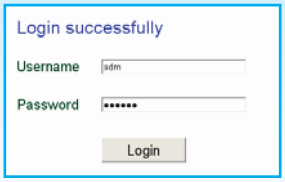
Network example



One Modbus gateway can bridge one refrigerant system with a PC or the Modbus master.

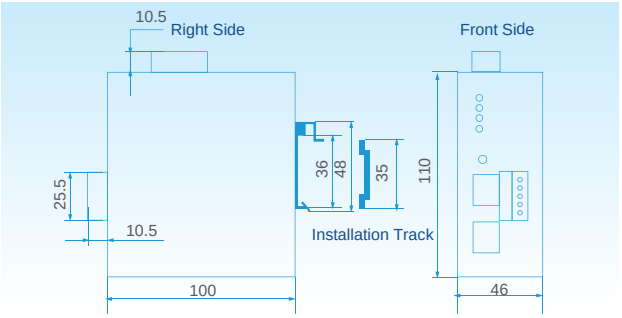
Config A/C System via Web

When the Modbus network is set, users can conveniently configure their A/C network system over the Internet using different TCP/IP browsers.



Dimensions

The Modbus Gateway is designed with a small size. It's equipped a installation track for the easy on-site installation.



Accessories

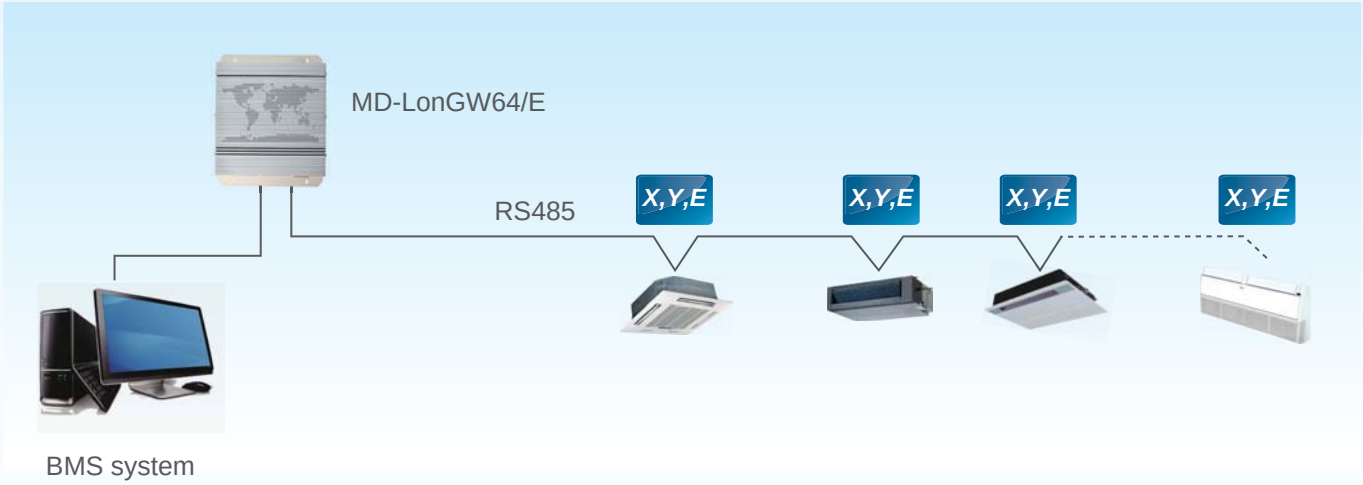
LonWorks® BMS Gateway

MD-LonGW64

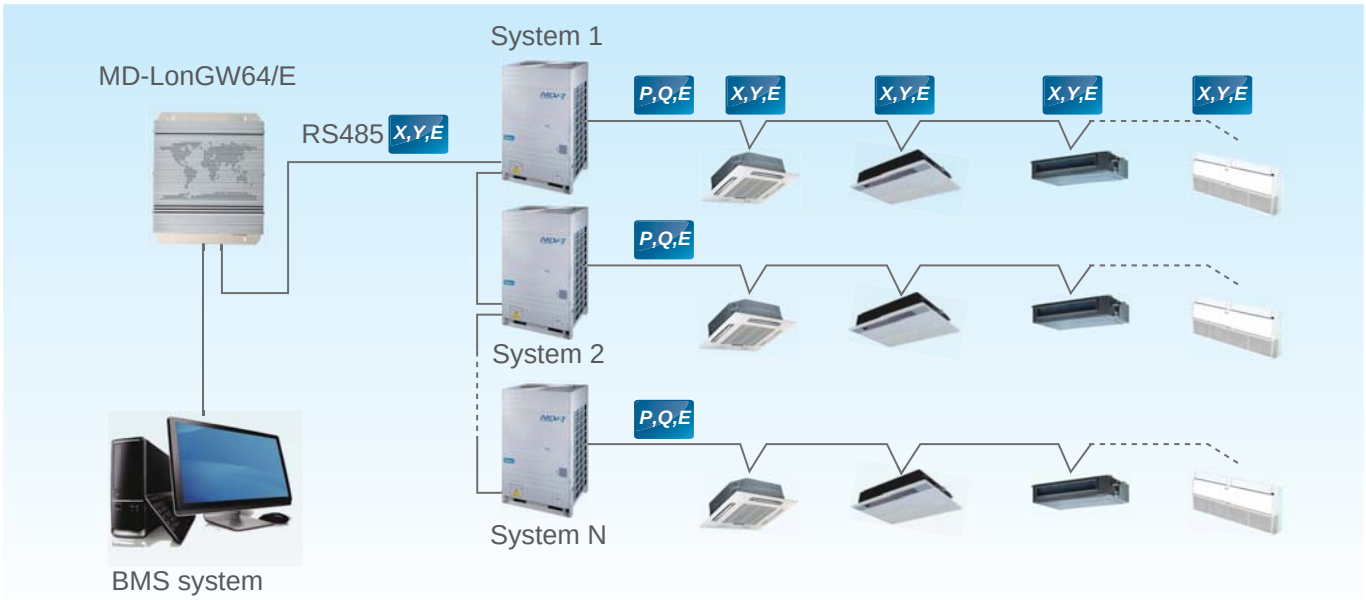
Compliance with LonMark protocol,and realizes the management and control of A/C.
Can connect up to 64 indoor units to the BMS.
Realizes non-polarity communication,and also the application can be download online.

Network example

Connection method 1: Suitable for all of air conditioner systems and connect max.64 indoor units.



Connection method 2: Only suitable for V4 plus system and connect max.64 indoor units.



Specifications

Model	MD-LonGW64
Dimensions (H*W*D)(mm)	31.9×25.1×6.1
Power (V)	177~265V AC(50Hz/60Hz)

Accessories

3-Phase Protector

HWUA/DPB71CM48

Detect the power condition and make the corresponding protecting action.
Protect the compressor from being damaged.
Automatically distinguish the abnormal power supply conditions and automatically recover.

HWUA

DPB71CM48

Excellent reliability

The protector protects the entire system from power supply problems, and auto restart after recovery.

Specifications

Model	With over/under voltage function				Without over/under voltage function
	HWUA	DPA53CM23	HWUA	DPB71CM48	DPA51CM44
Power supply (V-N-Hz)	220~480V-3N 50/60Hz	208~480V-3N 50/60Hz	220~480V-3N 50/60Hz	380~480V-3N 50/60Hz	208~480V-3N 50/60Hz
Temp. range(°C)	-20°C~50°C	50Hz: -20°C~60°C 60Hz: -20°C~50°C	-20°C~50°C	-20°C~50°C	50Hz: -20°C~60°C 60Hz: -20°C~50°C
Rated operational power(VA)	2.9 VA	7 VA	2.9 VA	13 VA	13 VA
Over voltage	12%	12%	18%	18%	/
Under voltage	-12%	-12%	-12%	-12%	
Phase imbalance	8%	/	8%	8%	
Dimensions(W×H×D)(mm)	90×69×35	81×67.2×17.5	90×69×35	81×67×35	81×67.2×17.5

Digital Power Ammeter

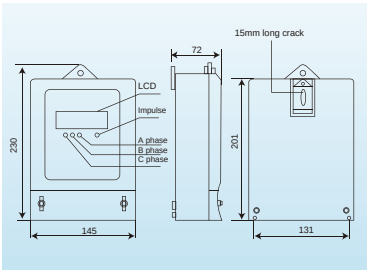
DTS634/DTS636

Calculates power consumption.
Does not need adjusting after long-term use.
Corresponds one outdoor unit to one digital power meter.

Low power consumption

The digital power meter consumes minimal energy.
Voltage circuit: less than 2W/10VA
Current circuit: less than 2.5VA

Indications and installation



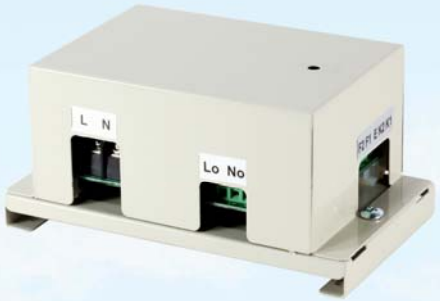
The digital power meter is tested after manufacture so it can be immediately deployment and used on-site. The LED indicators and installation schematic are shown in the figure on the left.

■ Specifications

Model	DTS634/DTS636
Dimensions (H*W*D)(mm)	230×145×72
Power (V)	200V-500V(50/60Hz)

Remote Alarm Controller

KJR-32B



Functions

Simple design

KJR-32B is specially designed for engineering applications. It does not display the ODU's working parameters, but it can connect to the alarm device when ODU is working abnormally, the RUN light will flash.

■ Specifications

Model	KJR-32B
Dimensions (H*W*D)(mm)	150×85×70
Power (V)	198-242V(50/60Hz)

Indoor Unit Group Controller

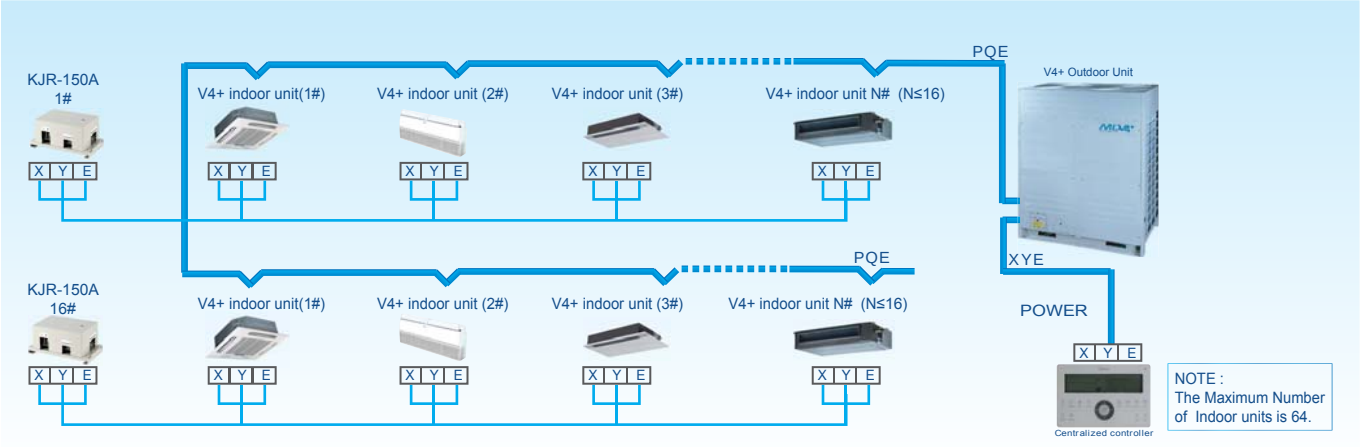
KJR-150A

Functions

Simple design

KJR-150A is specially designed for V4 plus indoor units. A group controller can connect up to 16 V4 plus indoor units through X1, Y1 and E terminals, but it cannot directly connect to the central controller. If you need to use a central controller or a PC, you can connect to the XYE from an outdoor unit. A group controller can control a group of indoor units simultaneously, and query the running status of each unit in the group via the display panel.

System wiring diagram



■ Specifications

Model	KJR-150A
Dimensions (H*W*D)(mm)	150×85×70
Power (V)	198-242V(50/60Hz)

Accessories

Infrared sensor controller

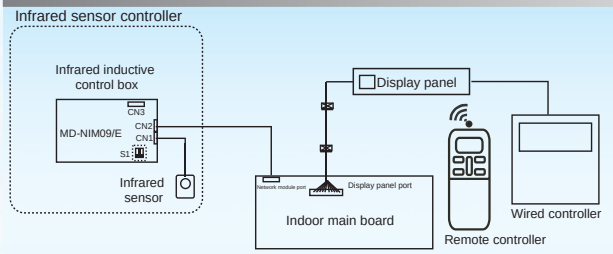
MD-NIM09

Automatically adjust the room environment.
Automatically extend the shutting down time, avoiding frequent ON/OFF.
Graceful appearance accommodates itself to different buildings.

Installation example

MD-NIM09 works together with the wired controller.

Electrical wiring



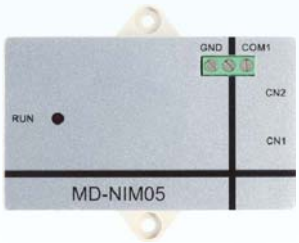
Specifications

Model	MD-NIM09
Dimensions(H×W×D)(mm)	Senor part: 46×30×25.6, Control box: 86×72.8×15.5
Power	DC 5V

Hotel Card Key Interface Module

MD-NIM05

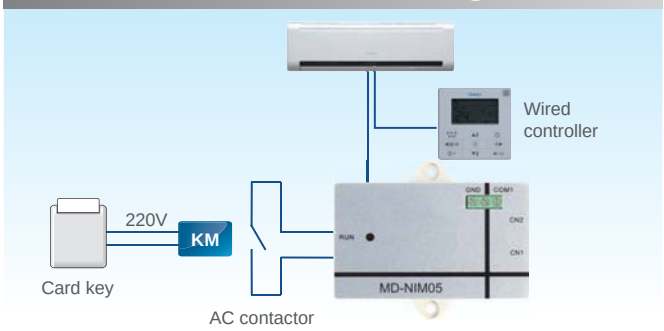
Cooperate with the wired controller to automate control.
Eliminates the need for high voltage power, making the device safe and steady.
Includes a build-in auto-restart function.



Installation example

Wired controller is necessary in this card-key system.

Electrical wiring



Specifications

Model	MD-NIM05
Dimensions (H*W*D)(mm)	86×72.8×15.5
Power (V)	DC 5V

Accessories

AHU Control Box

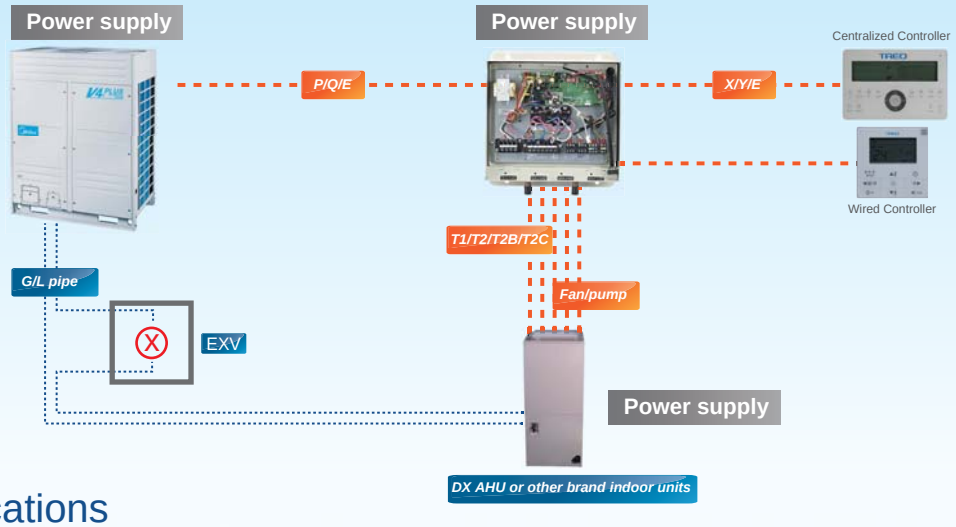
AHUKZ-01A/AHUKZ-02A/AHUKZ-03A

V4+ functions inside.

Can be used to connect VRF outdoor units with DX AHU or other brand indoor units

Introduction

AHUKZ-01A/AHUKZ-02A/AHUKZ-03A is an independent control box that can connect a AHU to V4 plus system to realize centralized control with V4 plus system. Control box wiring is as follows:

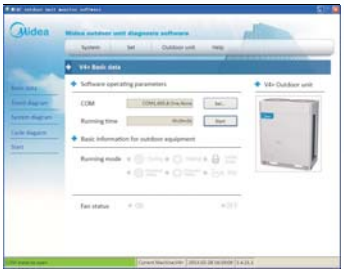


■ Specifications

Model	AHUKZ-01A/AHUKZ-02A/AHUKZ-03A
Dimensions(H×W×D)(mm)	335×375×150
Power (V)	220-240V~ 50Hz 208-230V~ 60Hz

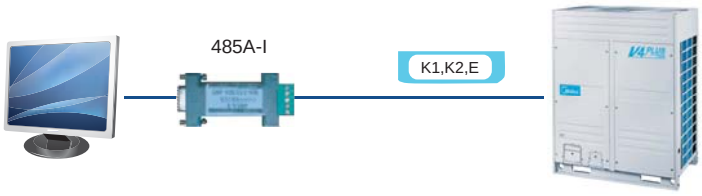
Outdoor Unit Diagnosis Software MCAC-DIAG/E

Display the outdoor units' real-time running conditions.
Automatically outputs running status charts.
Supports V3, V4, V4+, D3, D4 outdoor units.



Wiring diagram

The diagnostic software applies to K1, K2, E of the outdoor units. The corresponding wiring diagram is shown in the figure on the right.



■ Recommended config

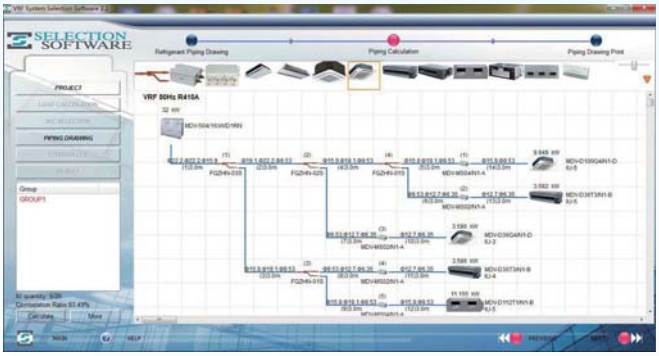
Operating system	WIN XP SP4/WIN 7
CPU	Pentium 4 2G or above
HDD	30G free space
Interface port	RS-232 terminal

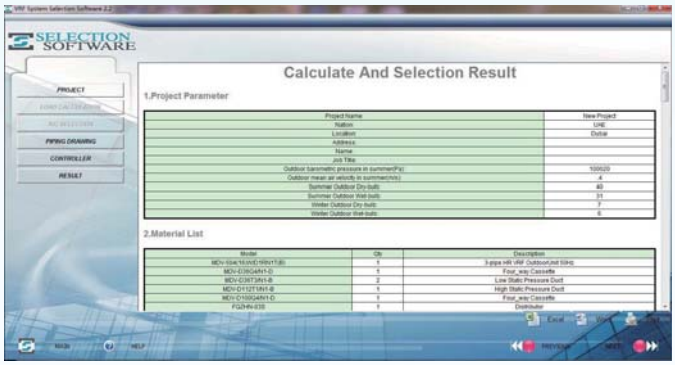
Selection software

To meet consultants' and distributors' requirements, Midea has developed an advanced design automation tool that can be used in AutoCAD-based CAD version or Windows-based Sales version. The software provides quick and convenient selectable options for users, supports multiple languages, and greatly improves the selection process.

Windows Version

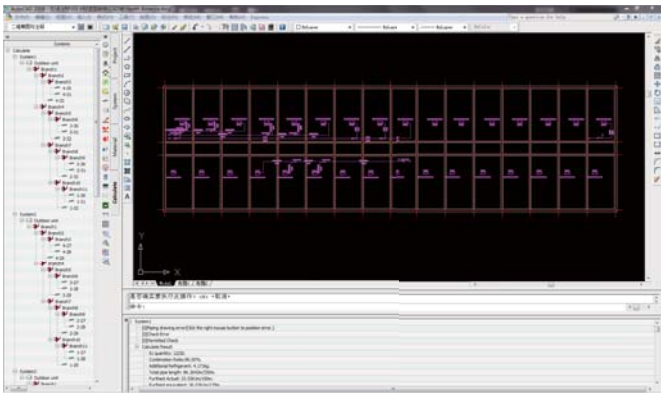
Load calculation： Provides two calculation methods (detailed room load calculation and rough load calculation).
Indoor & outdoor units selection: There are versatile indoor units and different outdoor units for choosing.
Piping drawing: Displays the detailed layout of an A/C system and the parameters for piping and branch distributors.
Controller selection: Provides a selection of controllers for indoor units and outdoor units, including wireless and remote controllers for indoor units.
Report output: Outputs a comprehensive selection report as a Word or PDF document.

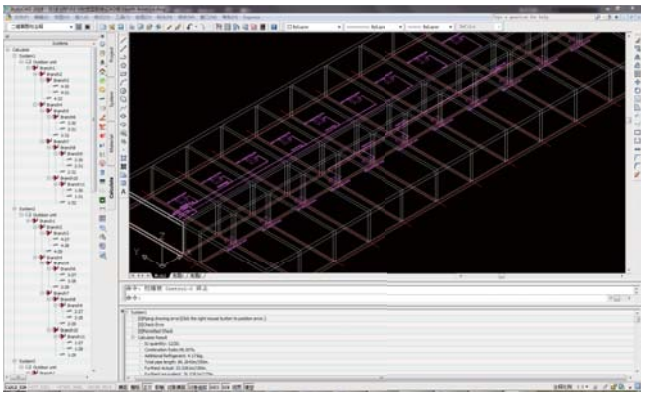




CAD Version

AutoCAD add-on software
Automatic Calculation: Refrigerant & drain pipe size
Automatic Selection: Distributor kit & branch joint
System Check: Installation regulation & refrigerant addition
Automatic Report: Piping installation diagram, equipment list & quotation





HRV

Heat recovery ventilator

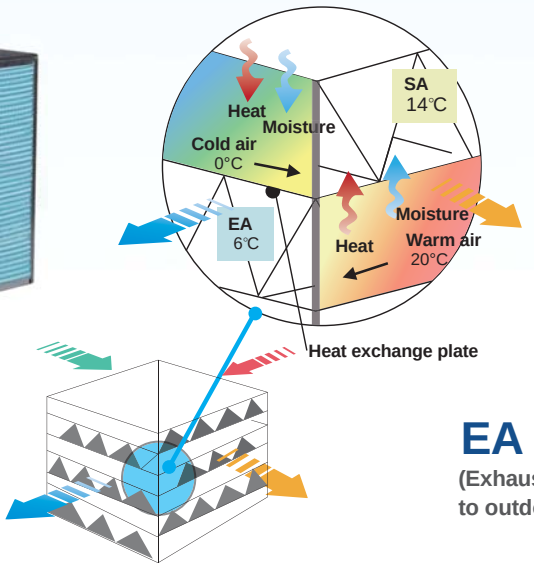
Larger air supply rate
enhanced heat exchange efficiency
enhanced energy saving property

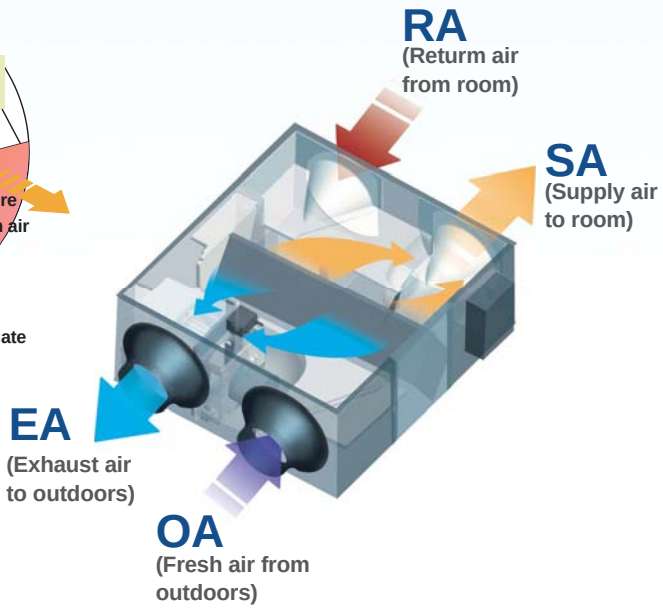
The heat recovery ventilator (HRV) can reclaim heat energy lost through ventilation and reduce the room temperature fluctuation caused by ventilation process. By utilizing the most advanced technology and technics, Midea HRV has extremely good performance. The heat exchanged core is made of special paper processed with chemical treatment, which could realize better temperature and humidity control of the room environment. Temperature exchange efficiency is above 65% and enthalpy exchange efficiency between 50-65%.

Model Names

HRV-200 HRV-500
HRV-300 HRV-800
HRV-400 HRV-1000

HRV-1500 HRV-2000



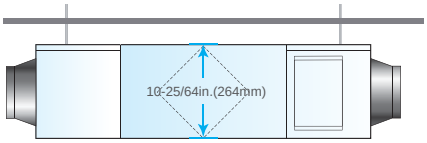


Low noise

Sound proof material is used to guarantee quiet operation.

Compact design, flexible installation and easy maintenance

With a min. height of only 10-25/64in.(264mm) and 50lbs (23kg) weight, the unit provides best convenience and possibility for installation in limited spaces.

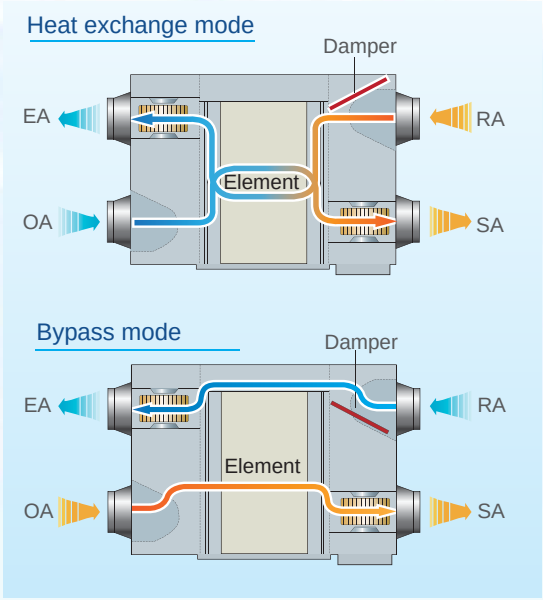


Multi-modes for different situations

Heat exchange mode

When air flow formed by the fans goes through the heat exchanged core in cross way, due to temperature difference between two channels of the core, thermal transmission happens naturally.

In summer days, high temperature outdoor air gets cooled by indoor exhaust air; in winter, low temperature outdoor air gets heated by indoor exhaust air. So the energy contained in exhaust air can be reclaimed and energy efficiency gets improved.



Bypass mode

In mild climate areas or seasons, when temperature and humidity level difference between indoor and outdoor is small, the unit works as conventional ventilation fan. Both supply fan and exhaust fan works at the same speed (Hi/mid/low/auto).

Air supply mode

It is one kind of bypass mode with air supply fan speed higher than exhaust fan speed. It can be used in mild climate area where large amount fresh air is needed.

Exhaust air mode

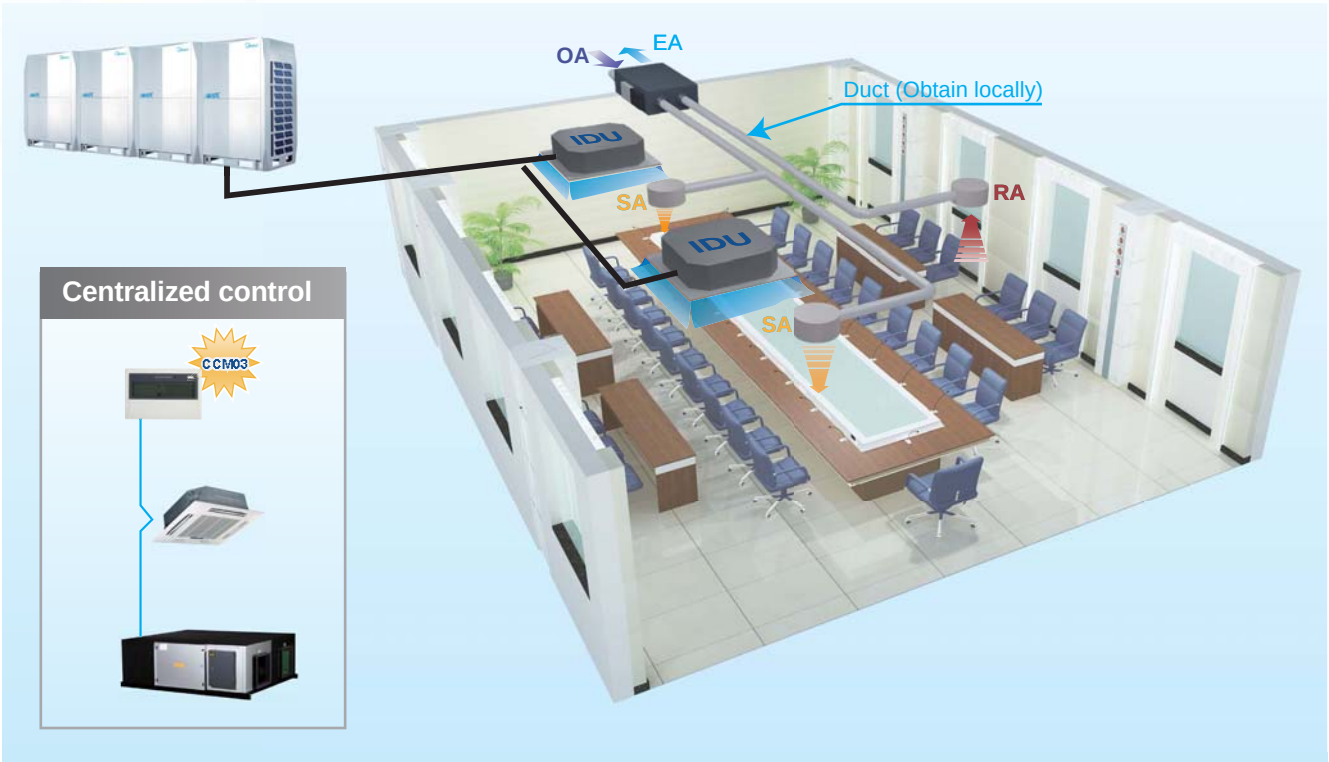
It is also one kind of bypass mode with exhaust fan speed higher than air supply fan speed. It can be used in mild climate area where large amount exhaust air needs to be expelled.

Auto mode

The controller chooses heat exchange mode or bypass mode according to the temperature difference between outdoor and indoor temperature. Both the two fans work at low speed.

Flexible control

Interlocking control with other indoor units by controller is possible.



Specifications

Model				HRV-200	HRV-300	HRV-400	HRV-500
Power supply			V/Ph/Hz	220-240/1/50		220-240/1/50 (220/1/60)	
Temperature exchange efficiency (%)		High	%	65	65	65	65
		Medium	%	65	65	65	65
		Low	%	70	70	70	70
Enthalpy exchange efficiency (%)	For cooling	High	%	50	50	50	50
		Medium	%	50	50	50	50
		Low	%	55	55	55	55
	For heating	High	%	55	55	60	60
		Medium	%	55	55	60	60
		Low	%	60	60	65	65
Sound pressure level	Heat exchange mode	High	dB(A)	27	30	32	35
		Medium	dB(A)	26	29	31	34
		Low	dB(A)	20	23	25	28
	Bypass mode	High	dB(A)	28	31	33	36
		Medium	dB(A)	27	30	32	35
		Low	dB(A)	22	25	27	30
Net dimension (W×D×H)			mm	866×655×264	944×722×270	944×927×270	1038×1026×270
			inch	34-1/8×25-3/4×10-3/8	37-3/16×	37-3/16×36-1/2×10-5/8	40-7/8×40-3/8×10-5/8
Packing size (W×D×H)			mm	930×730×445	1010×800×450	1010×1010×450	1120×1120×452
			inch	36-5/8×28-3/4×17-1/2	39-3/4×31-1/2×17-3/4	39-3/4×39-3/4×17-3/4	44-1/8×44-1/8×17-13/16
Net/gross weight			kg(lbs)	23/40(50.6/88)	26/44(57.2/96.8)	31/52(68.3/114.4)	41/64(90.4/140.8)
Casing				Galvanized steel plate			
Heat exchange system				Air to air cross flow total heat (sensible heat + latent heat) exchange			
Heat exchange element material				Specially processed nonflammable paper			
Fan	Type			Centrifugal fan			
	Airflow rate	High	m^3/h(CFM)	200	300	400(235.6)	500(294.5)
		Medium	m^3/h(CFM)	200	300	400(235.6)	500(294.5)
		Low	m^3/h(CFM)	150	225	300(176.7)	375(220.8)
	ESP	High	Pa	75	75	80	80
		Medium	Pa	58	60	65	68
		Low	Pa	35	40	43	45
	Motor output		W	20	40	80	120
Duct diameter			mm(in.)	Φ144(5-11/16)	Φ144(5-11/16)	Φ144(5-11/16)	Φ194(7-5/8)
Operating temperature range			°C	-7~43 DB, 80% RH or less			
			°F	19.4~109.4 DB, 80% RH or less			

Model				HRV-800	HRV-1000	HRV-1500	HRV-2000
Power supply			V/Ph/Hz	220-240/1/50 (220/1/60)		380/3/50 (280/3/60)	
Temperature exchange efficiency (%)		High	%	65	65	65	65
		Medium	%	65	65	/	/
		Low	%	70	70	/	/
Enthalpy exchange efficiency (%)	For cooling	High	%	50	50	50	50
		Medium	%	50	50	/	/
		Low	%	55	55	/	/
	For heating	High	%	60	60	60	60
		Medium	%	60	60	/	/
		Low	%	65	65	/	/
Sound pressure level	Heat exchange mode	High	dB(A)	39	40	51	53
		Medium	dB(A)	38	39	/	/
		Low	dB(A)	32	33	/	/
	Bypass mode	High	dB(A)	40	41	52	54
		Medium	dB(A)	39	40	/	/
		Low	dB(A)	34	35	/	/
Net dimension (W×D×H)			mm	1286×1006×388	1286×1256×388	1600×1270×540	1650×1470×540
			inch	50-5/8×39-5/8×15-1/4	50-5/8×49-7/16×15-1/4	63×50×21-1/4	65×57-7/8×21-1/4
Packing size (W×D×H)			mm	1380×1100×573	1390×1350×580	1680×1350×720	1760×1580×720
			inch	54-5/16×43-5/16×22-9/16	54-3/4×53-1/8×22-13/16	66-1/8×53-1/8×28-3/8	69-5/16×62-3/16×28-3/8
Net/gross weight			kg(lbs)	62/88(136.7/193.6)	79/110(173.8/242)	163/224(358.6/492.8)	182/247(400.4/543.4)
Casing				Galvanized steel plate			
Heat exchange system				Air to air cross flow total heat (sensible heat + latent heat) exchange			
Heat exchange element material				Specially processed nonflammable paper			
Fan	Type			Centrifugal fan			
	Airflow rate	High	m^3/h(CFM)	800(471.1)	1000(588.2)	1500(882.4)	2000(1176.5)
		Medium	m^3/h(CFM)	800(471.1)	1000(588.2)	/	/
		Low	m^3/h(CFM)	600(353.4)	750(441.2)	/	/
	ESP	High	Pa	100	100	160	170
		Medium	Pa	82	85	/	/
		Low	Pa	54	58	/	/
	Motor output		W	360	360	450	450
Duct diameter			mm(in.)	Φ242(9-1/2)	Φ242(9-1/2)	346×326(13-5/8×12-7/8)	346×326(13-5/8×12-7/8)
Operating temperature range			°C	-7~43 DB, 80% RH or less			
			°F	19.4~109.4 DB, 80% RH or less			

Note:

1. For the units model of HRV (400-1000), there are 3-speed adjustable air volume (Hi, Med, Low), but for the units model of HRV (1500-2000), there are only 1-speed which cannot be adjusted.
2. Sound level is measured at 1.4m below the center of the body in an anechoic chamber.
3. Temperature Exchange Efficiency is the mean value between cooling and heating.
4. Efficiency is measured under the following conditions:

* Cooling Condition: Air Exhaust Temp. 27°C(80.6°F) DB,19.5°C(67.1°F) WB., Fresh Air Temp. 35°C(95°F) DB,28°C(82.4°F) WB.
* Heating Condition: Air Exhaust Temp. 21°C(69.8°F) DB,13°C(55.4°F) WB., Fresh Air Temp. 5°C(41°F) DB,2°C(35.6°F) WB.

CVC® EMS

Is certified under the ISO 14001 International standard
for environmental management.
Certificate No.15912E10020R0L

CVC® OHSMS

Certificate of Occupational Health and Safety Management System
Certificate No. 15912S20006R0L-1.

TÜVRheinland® CERT ISO 9001

Is certified under the ISO 9001 International standard
for quality assurance.
NO.01 100 019209

TREO Commercial Air Conditioner Business Unit

TEMPEX LTD
52 Kuklensko shosse, Plovdiv, Bulgaria
phone: +359 32 390 100, fax: +359 32 390 101
e-mail: tempex@tempexbg.com